

GenCore version 5.1.8
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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:31:21 ; Search time 120.333 Seconds

(without alignments)
129.186 Million cell updates/sec

Title: US-10-632-366-1

Perfect score: 191

Sequence: 1 DVSTPPTVLPDNFRPRYPGVKFPQYDTWKSTQRL 34

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2589679 seqs, 457216429 residues

Total number of hits satisfying chosen parameters: 2589679

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

A_Geneseq_8:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneseqp2000s:*

4: geneseqp2001s:*

5: geneseqp2002s:*

6: geneseqp2003as:*

7: geneseqp2003bs:*

8: geneseqp2004s:*

9: geneseqp2005s:*

10: geneseqp2006s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	191	100.0	34	4	AA831481
2	191	100.0	34	4	ADM35841
3	191	100.0	34	8	ADM35841
4	191	100.0	35	4	ADM36218
5	191	100.0	155	9	ADM31207
6	191	100.0	156	9	ADM31207
7	191	100.0	180	1	ADM31207
8	191	100.0	180	3	ADM31207
9	191	100.0	180	5	ADM31207
10	191	100.0	180	5	ADM31207
11	191	100.0	180	6	ADM31207
12	191	100.0	180	6	ADM31207
13	191	100.0	180	6	ADM31207
14	191	100.0	180	7	ADM31207
15	191	100.0	180	7	ADM31207
16	191	100.0	180	7	ADM31207
17	191	100.0	180	8	ADM31207
18	191	100.0	180	8	ADM31207
19	191	100.0	180	8	ADM31207
20	191	100.0	180	8	ADM31207
21	191	100.0	180	8	ADM31207
22	191	100.0	180	8	ADM31207
23	191	100.0	180	8	ADM31207

24	191	100.0	180	8	ADQ39470	Adq39470 Human myo
25	191	100.0	180	9	ADY86802	Ady86802 Human IGF
26	191	100.0	180	9	AEA89444	Aea89444 Human ins
27	191	100.0	180	9	AED08781	Aed08781 Human ins
28	191	100.0	180	10	AEF05090	Aef05090 Human ins
29	191	100.0	262	5	ABP69409	Abp69409 Human pol
30	191	100.0	275	5	AED74143	Aed74143 Human pla
31	187	97.9	33	4	AA831484	Aa831484 Amino aci
32	186	97.4	180	1	AA831485	Aap93525 Sequence
33	182	95.3	32	4	AA831486	Aab31485 Amino aci
34	177	92.7	31	4	AA831487	Aab31486 Amino aci
35	175	91.6	180	7	ADD25496	Add25496 Binding d
36	172	90.1	30	4	AA831487	Aab31487 Amino aci
37	168	88.0	29	4	AA831488	Aab31488 Amino aci
38	163	85.3	28	4	AA831489	Aab31489 Amino aci
39	158	82.7	27	4	AA831490	Aab31490 Amino aci
40	150	78.5	34	4	AA831483	Aab31483 Amino aci
41	150	78.5	34	8	ADM35843	Adm35843 Mouse pre
42	150	78.5	34	8	ADM36216	Adm36216 Murine pr
43	150	78.5	353	8	ABO84530	Ab084530 Mouse can
44	147	77.0	26	4	AA831481	Aab31491 Amino aci
45	142	74.3	25	4	AA831492	Aab31492 Amino aci

ALIGNMENTS

RESULT 1	AA831481	standard; peptide; 34 AA.
AC	AA831481	
XX	AA831481	
XX	AA831481	
DT	20-APR-2001	(first entry)
XX		
DE		Amino acid sequence of human preproinsulin peptide.
XX		
KW	Bioactive peptide; preproinsulin; pancreatic islet beta-cell;	
KW	glucose-mediated insulin secretion; insulin synthesis; type II diabetes;	
XX	glucose mediated insulin secretion.	
OS	Homo sapiens.	
XX		
PN	W0200078805-A1.	
XX		
PD	28-DEC-2000.	
XX		
PF	19-JUN-2000; 2000MO-NZ000102.	
XX		
PR	18-JUN-1999; 99NZ-00336359.	
XX		
PA	(COOP/) COOPER G J S.	
XX	(BUCH/) BUCHANAN C M.	
PI	Cooper GJS, Buchanan CM;	
XX		
DR	WPI, 2001-112313/12.	
DR	N-PSDB; AAF24865.	
PT	New mammalian peptide with preproinsulin functionality, useful for preventing	
XX	or treating Type 2 diabetes mellitus by stimulating insulin secretion.	
XX		
PS	Claim 3; Page 27; 51pp; English.	
XX		
CC	The present sequence represents a human preproinsulin peptide. The peptide	
CC	corresponds to Arg69-Leu102 of the proIGF-II E peptide. Preproinsulin is	
CC	secreted by pancreatic islet beta-cells which enhances glucose-mediated	
CC	insulin secretion. Preproinsulin peptides and their analogues are useful in	
CC	preparing medicaments for preventing or treating a condition which	
CC	results in or involves deficient insulin synthesis, secretion or action	
CC	e.g. type II diabetes. Antibodies specific to preproinsulin peptides are useful	
CC	in an immunological assay such as radioimmunoassay (RIA), IRMA	
CC	(undefined) or Enzyme linked immunosorbent assay (ELISA) for	

CC quantitatively measuring preptin in a biological fluid preferably in
 CC cerebrospinal fluid. Agonists or antagonists of preptin peptides are
 CC useful for modulating glucose mediated insulin secretion
 CC
 CC Sequence 34 AA;
 SQ

Query Match 100.0%; Score 191; DB 4; Length 34;
 Best Local Similarity 100.0%; Pred. No. 4.8e-19;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTQRL 34
 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTQRL 34
 Db

RESULT 2
 ADM35841
 ID ADM35841 standard; peptide; 34 AA.
 AC ADM35841;
 XX
 XX
 XX
 DT 03-JUN-2004 (first entry)
 XX

Human preptin, SEQ ID NO:1, useful for treating beta-cell disorders.
 KW Human; preptin; pancreatic islet beta-cell; fibroblast; proliferation;
 KW differentiation; beta-cell disorder; diabetes; insulin resistance;
 KW insulin resistance; insulin secretion disorder; hyperglycaemia; wound;
 KW burns; ulcer; mucous membrane disruption;
 KW peripheral nervous system injury; Alzheimer's disease;
 KW Parkinson's disease; stroke; amyotrophic lateral sclerosis;
 KW muscular dystrophy; diabetic neuropathy; myocardopathy; myocarditis;
 KW myocardial infarction; cardiac disease; acute renal insufficiency;
 KW ischaemia; antidiabetic; vulnuerity; antitumor; antiinflammatory;
 KW gastrotestinal; nootropic; neuroprotective; antiparkinsonian;
 KW cerebroprotective; muscular; cardiant; nephrotropic; dermatological;
 KW protein therapy.
 KW
 KW
 OS Homo sapiens.
 XX
 XX
 PN MO2004012761-AA.
 XX
 XX
 PD 12-FEB-2004.
 XX
 PF 01-AUG-2003; 2003WO-NZ000171.
 XX
 XX
 PR 01-AUG-2002; 2002NZ-00520536.
 PR 01-AUG-2002; 2002US-0400445P.
 XX
 XX
 PA (PROT-) PROTETIX CORP LTD.
 XX
 XX
 PI Cooper GJS, Buchanan CM, James GC;
 XX
 XX
 DR WPI; 2004-157011/15.
 XX
 XX
 PT Use of preptins, preptin analogs, preptin agonists, their salts or
 PT derivatives, for treating a mediated disease, disorder or condition
 PT mediated in whole or in part by beta-cells or beta-cell dysfunction, e.g.
 PT ulcers or inflammation.
 XX
 XX
 PS Claim 2; SEQ ID NO 1; 63pp; English.
 XX
 XX
 CC The invention relates to a method for treating a disorder mediated by
 CC pancreatic islet beta-cells or beta-cell dysfunction by administering
 CC preptins (ADM35841-ADM35843), preptin analogues, preptin agonists or
 CC salts or derivatives thereof. Preptins are able to stimulate the
 CC proliferation and differentiation of beta-cells and fibroblasts.
 CC Preptins, preptin analogues, preptin agonists, their salts and
 CC derivatives are useful in the treatment of internal or external injuries
 CC or wounds (e.g., burns, ulcers, surgical wounds or mucous membrane
 CC disruption); conditions characterised by decreased beta-cell mass or
 CC number; beta-cell mediated diseases (e.g., type 1 or type 2 diabetes);
 CC and conditions characterised by insulin resistance, undestably low

CC insulin secretion, hyperglycaemia or post-prandial hyperglycaemia. They
 CC may also be used for treating and/or preventing peripheral nervous system
 CC injury; Alzheimer's disease; Parkinson's disease; stroke; amyotrophic
 CC lateral sclerosis; muscular dystrophy; diabetic neuropathy;
 CC myocardiopathies such as myocarditis and myocardial infarction; cardiac
 CC disease and acute attack; and acute renal insufficiency caused by
 CC ischaemia. They are additionally useful for increasing or maintaining
 CC beta-cell mass or beta-cell number; for stimulating beta-cell
 CC proliferation via cell differentiation or neogenesis; for increasing type
 CC cell mass via cell differentiation or neogenesis; for decreasing cell
 CC death of motor neurons; for increasing muscular end plates; promoting the
 CC functional recovery of damaged sciatic nerves; preventing peripheral
 CC motor paralysis during or as a result of chemotherapy; and for improving
 CC myocardial function. The present sequence represents human preptin, which
 CC is specifically claimed for use in the method of the invention.
 CC
 CC Sequence 34 AA;
 SQ

Query Match 100.0%; Score 191; DB 8; Length 34;
 Best Local Similarity 100.0%; Pred. No. 4.8e-19;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTQRL 34
 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTQRL 34
 Db

RESULT 3
 ADM96218
 ID ADM96218 standard; peptide; 34 AA.
 AC ADM96218;
 XX
 XX
 XX
 DT 17-JUN-2004 (first entry)
 XX
 XX
 DE Human preptin peptide used to treat various bone conditions SeqID 3.
 XX
 XX
 KW osteoblast growth; osteoblast apoptosis; preptin;
 KW prolinsulin-like growth factor II; osteopathic; osteoporosis; osteopenia;
 KW osteogenesis imperfecta; primary hyperparathyroidism; endocrine disorder;
 KW corticosteroid treatment; autoimmune arthritis; drug use; human.
 KW
 KW
 OS Homo sapiens.
 XX
 XX
 PN MO2004012760-AA.
 XX
 XX
 PD 12-FEB-2004.
 XX
 PF 31-JUL-2003; 2003WO-NZ000168.
 XX
 XX
 PR 01-AUG-2002; 2002US-0400443P.
 XX
 XX
 PA (AUCR-) AUCKLAND UNISERVICES LTD.
 XX
 XX
 PI Cornish J, Reid IR, Cooper GJS, Buchanan CM;
 XX
 XX
 DR WPI; 2004-157010/15.
 XX
 XX
 PT Use of preptin, preptin analog or preptin agonist for treating a bone
 PT condition (e.g. osteoporosis or osteopenia), increasing or maintaining
 PT bone density, stimulating osteoblast growth, or modulating osteoblast
 PT apoptosis.
 XX
 XX
 PS Claim 2; SEQ ID NO 3; 29pp; English.
 XX
 XX
 CC This invention relates to a novel method for treating a bone condition.
 CC Specifically, it refers to increasing or maintaining bone density, the
 CC stimulating osteoblast growth, or modulating osteoblast apoptosis. The
 CC present invention comprises administering preptin, a preptin analogue or
 CC agonist thereof, which corresponds to residues Asp-69 to Leu-102 of the
 CC prolinsulin-like growth factor II that is co-secreted with insulin from
 CC pancreatic islet beta cells in response to glucose. Accordingly, such
 CC compositions that exhibit osteopathic activities can be used to treat or

CC ameliorate diseases including osteoporosis, osteopenia, bone defects or
CC osteogenesis imperfecta, as well as bone loss resulting from primary
CC hyperparathyroidism, endocrine disorders, corticosteroid treatment,
CC autoimmune arthritis or addictive drug use. This peptide sequence is the
CC human prepro peptide of the invention.
XX

SQ Sequence 34 AA;

Query Match 100.0%; Score 191; DB 8; Length 34;
Best Local Similarity 100.0%; Pred. No. 4.8e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKQSTQRL 34
Db 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKQSTQRL 34

RESULT 4
AAB91207
ID AAB91207 standard; peptide; 35 AA.
XX

AC AAB91207;
XX
DT 22-JUN-2001 (first entry)
XX

DE Insulin and insulin-like peptide SEQ ID NO:381.

KW Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW blood component; modification; succinimideyl; maleimido group; amino;
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX

OS Homo sapiens.
OS Synthetic.
XX

XX WO200069900-A2.

XX 23-NOV-2000.

XX 17-MAY-2000; 2000WO-US013576.

XX 17-MAY-1999; 99US-0134406P.

XX 10-SEP-1999; 99US-0153406P.

XX 15-OCT-1999; 99US-0159783P.

XX (CONU-) CONNUCHEM INC.

XX Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudau K;
XX WPI; 2001-112059/12.

PT Modifying and attaching therapeutic peptides to albumin prevents
PT peptidase degradation, useful for increasing length of in vivo activity.
XX

PS Disclosure; Page 321-322; 733pp; English.

XX The present invention describes a modified therapeutic peptide (I)
CC comprising a therapeutically active amino acid region (III) and a
CC reactive group (II) (e.g. succinimideyl and maleimido groups) attached to
CC a less therapeutically active amino acid region (IV), which covalently
CC bonds with amino/hydroxyl/thiol groups on blood components to form a
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC factors and neurotransmitters, to protect them from peptidase activity in
CC vivo for the treatment of various disorders. Endogenous therapeutic
CC peptides are not suitable as drug candidates as they require frequent
CC administration due to rapid degradation by peptidases in the body.
CC Modifying and attaching therapeutic peptides to albumin prevents or
CC reduces the action of peptidases to increase length of activity (half
CC life) and specificity as bonding to large molecules decreases
CC intracellular uptake and interference with physiological processes.
CC AAB90829 to AAB92441 represent peptides which can be used in the
CC exemplification of the present invention
XX

SQ Sequence 35 AA;

Query Match 100.0%; Score 191; DB 4; Length 35;
Best Local Similarity 100.0%; Pred. No. 4.9e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKQSTQRL 34
Db 2 DVSTPPTVLPDNFPRYPVGKFFQYDTWKQSTQRL 35

RESULT 5
AED59621
ID AED59621 standard; protein; 155 AA.
XX

AC AED59621;
XX

DT 29-DEC-2005 (first entry)
XX

DE Human insulin growth factor 2 (IGF2) polypeptide.

KW insulin growth factor 2; IGF2; cell growth; cell differentiation.
XX

XX Homo sapiens.
XX

XX IN9900401-14.

XX 04-MAR-2005.

XX 07-APR-1999; 99IN-CH000401.

XX 07-APR-1999; 99IN-CH000401.

XX (ZYMO) ZYMOGENETICS INC.

XX Conklin DC, Lofton-Day CE, Lok SI, Jaepers SR;
XX WPI; 2005-557657/57.

XX Insulin homologs.

XX Insulin homologs.

XX Disclosure; Fig 1; 78pp; English.

CC The invention relates to polynucleotide and polypeptide sequences for a
CC novel insulin homolog referred to as Zins3. The polynucleotide sequences
CC encoding the Zins3 polypeptides are located on chromosome 12. The present
CC invention also includes antibodies to the Zins3 polypeptides. The Zins3
CC polynucleotide and polypeptide sequences of the invention are useful for
CC identifying and isolating receptors involved in growth and
CC differentiation of Zins3 responsive cells. This sequence represents human
CC insulin growth factor 2 (IGF2) that shows homology to human Zins3.
XX

SQ Sequence 155 AA;

Query Match 100.0%; Score 191; DB 9; Length 155;
Best Local Similarity 100.0%; Pred. No. 2.5e-18;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKQSTQRL 34
Db 93 DVSTPPTVLPDNFPRYPVGKFFQYDTWKQSTQRL 126

RESULT 6
ADV90292
ID ADV90292 standard; protein; 156 AA.
XX

AC ADV90292;
XX

DT 10-MAR-2005 (first entry)
XX

DE Protease-hydrolysed polypeptide #69.
XX

KM Protease; immune disorder; inflammation; musculoskeletal disease;
 KM dermatological disease; gastrointestinal disease; endocrine disease;
 KM metabolic disorder; cancer; hematological disease;
 KM cardiovascular disease; neurological disease; neurodegenerative disease;
 KM growth disorder; respiratory disease; genitourinary disease;
 KM gynecological disorder; nutritional disorder; infection; cytostatic;
 KM gastrointestinal-gen.; antiinflammatory; antispasmodic; analgesic;
 KM antidiabetic; osteopathic; antidiabetic; nephroretropic;
 KM cardiovascular-gen.; immunosuppressive; respiratory-gen.; antipruritic;
 KM antiallergic; dermatological; enzyme; hydrolysis.
 XX
 OS Homo sapiens.
 XX
 XX WO2004113522-A1.
 PN
 PD 29-DEC-2004.
 XX
 PF 18-JUN-2004; 2004WO-EP051173.
 XX
 PR 18-JUN-2003; 2003EP-00013819.
 XX
 PR 10-NOV-2003; 2003EP-00025851.
 PR 11-NOV-2003; 2003EP-00025871.
 PR 11-FEB-2004; 2004EP-00003058.
 XX
 PA (DIR-) DIREVO BIOTECH AG.
 PI Haupts U, Kolermann A, Scheidig A, Voetsmeier C, Ketting U;
 DR WPI; 2005-057985/06.
 XX
 PT Proteases with defined specificity for a target substrate useful for
 PT creating a specific disease related to the target substrate, such as
 PT cancer, asthma, diabetes, inflammatory disorders and psoriasis.
 XX
 PS Claim 30; SEQ ID NO 122; 250pp; English.
 XX
 CC The invention relates to the use of a protease with defined specificity
 CC for a target substrate for preparing a medicament for the treatment of a
 CC specific disease related to the target substrate. The invention also
 CC relates to a pharmaceutical or diagnostic composition comprising one or
 CC more enzymes in the use cited, optionally comprising pharmaceutically or
 CC diagnostically acceptable carriers, excipients and/or auxiliary agents, a
 CC method for cleaving a target substrate in vivo or in vitro comprising
 CC contacting the target substrate with a protease as cited in the use
 CC mentioned, and a method for treatment of a disease in a patient connected
 CC with a specific target substrate comprising administering to the patient
 CC a protease with defined specificity for the specific target substrate.
 CC The protease hydrolyzes the target substrate and eliminates or reduces
 CC one or more biological activities, physico-chemical properties or
 CC pharmacological properties of the target protein and/or activates or
 CC increases one or more biological activities, physico-chemical properties
 CC or pharmacological properties of the target protein, and/or adds one or
 CC more biological activities, physico-chemical properties or
 CC pharmacological properties to the target protein. The protease may be
 CC administered to treat immune disorders, inflammatory disorders,
 CC musculoskeletal diseases, dermatological disease, gastrointestinal
 CC diseases, endocrine diseases, metabolic disorder, cancers, hematological
 CC diseases, cardiovascular diseases, neurological diseases,
 CC neurodegenerative diseases, growth disorders, respiratory diseases,
 CC genitourinary diseases, gynecological disorders, nutritional disorders
 CC and infections. This sequence represents a polypeptide hydrolysed by a
 CC protease used in the scope of the invention.
 CC
 XX
 SQ Sequence 156 AA;
 QY
 Query Match 100.0%; Score 191; DB 9; Length 156;
 Best Local Similarity 100.0%; Pred. No. 2.5e-18;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 DB 69 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTQRL 102

RESULT 7
 AAP60579
 ID AAP60579 standard; protein, 180 AA.
 AC AAP60579;
 XX
 XX 25-MAR-2003 (revised)
 DT 03-OCT-2002 (revised)
 DT 31-JUL-1991 (first entry)
 XX
 DE Human prepro-insulin-like growth factor-2.
 XX
 KM Insulin-like growth factor-2.
 XX
 OS Homo sapiens.
 XX
 XX Key Location/Qualifiers
 FH 1..180
 FT /label= prepro-insulin-like growth factor-2
 FT 25..67
 FT /label= mature insulin-like growth factor-2
 XX
 PN WO8600619-A.
 XX
 PD 30-JAN-1986.
 XX
 PF 10-JUL-1985; 85WO-US001325.
 XX
 PR 13-JUL-1984; 84US-00630557.
 XX
 PA (CHIR) CHIRON CORP.
 PI Bell G, Rall LB, Merryweather JP;
 DR WPI; 1986-042104/06.
 DR N-PSDB; AAN60491.
 XX
 CC Prepro insulin-like growth factors I and II - obtd. from the human
 CC genome by e.g. screening a cDNA library obtd. from human liver cells.
 XX
 PS Disclosure; Fig 2; 20pp; English.
 XX
 CC The sequence is human prepro-insulin-like growth factor-2. DNA probes
 CC prepared against DNA encoding the protein sequence may be used to detect the
 CC presence of the genes in a natural source. The probes may be used to
 CC detect mutations and/or deletions in humans suffering from growth
 CC deficiencies. See also AAN60489, AAN60490 (updated on 03-OCT-2002 to add
 CC missing OS field.) (updated on 25-MAR-2003 to correct PA field.)
 XX
 SQ Sequence 180 AA;
 QY
 Query Match 100.0%; Score 191; DB 1; Length 180;
 Best Local Similarity 100.0%; Pred. No. 2.9e-18;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 DB 93 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTQRL 126
 RESULT 8
 AAY70364
 ID AAY70364 standard; protein, 180 AA.
 AC AAY70364;
 XX
 XX 21-JUN-2000 (first entry)
 DT
 XX
 DE Insulin-like growth factor II.
 DE Renilla luciferase cDNA; IGF-II; insulin-like growth factor II;
 KM Insulin-like growth factor binding protein 6; IGFBP 6; GFP;

KW green fluorescent protein; molecule interaction; fluorescence.
 XX Homo sapiens.
 XX MO200014271-A1.
 XX 16-MAR-2000.
 XX 02-SEP-1999; 99MO-US020207.
 XX 03-SEP-1998; 98US-0099068P.
 XX 24-MAY-1999; 99US-0135835P.
 XX (UYLO-) UNIV LOMA LINDA.
 XX Szalay AA, Wang Y, Wang-Pruski G;
 DR WPI; 2000-246843/21.
 DR N-PSDB; AAZ51474.
 XX Determining molecule, especially protein, interaction within a living
 PT cell comprises forming complexes of molecules with a donor luciferase and
 PT an acceptor fluorophore and detecting any resulting fluorescence.
 PS Disclosure; Page 22-23; 30pp; English.
 XX The present cDNA sequence is Insulin-like growth factor II. This was
 CC selected as the second protein due to its binding affinity for IGFBP 6.
 CC The Renilla luciferase cDNA was fused to IGFBP 6 cDNA (Insulin-like
 CC growth factor binding protein 6) and humanised GFP (green fluorescent
 CC protein) cDNA was fused to IGF-II (Insulin-like growth factor II) cDNA.
 CC Living cells were transfected with the fused cDNAs and the fusion
 CC proteins were expressed. This is used in determining molecule interaction
 CC within a living cell by detecting any fluorescence resulting from
 CC luminescence resonance energy transfer from the donor luciferase
 CC indicating molecule interaction
 SQ Sequence 180 AA;
 Query Match 100.0%; Score 191; DB 3; Length 180;
 Best Local Similarity 100.0%; Pred. No. 2.9e-18;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34
 DB 93 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 126
 RESULT 9
 ID ABG96345 standard; protein; 180 AA.
 AC ABG96345;
 XX 11-DEC-2002 (first entry)
 DT Human ovarian cancer marker OV58.
 XX Human; ovarian cancer; marker; cancer; familial history; brain disorder;
 KW central nervous system disorder; bacterial meningitis; viral meningitis;
 KW Alzheimer's disease; Parkinson's disease; cerebral oedema; hydrocephalus;
 KW brain herniation; inflammation; encephalitis; testicular disorder;
 KW nontuberculous granulomatous orchitis; connective tissue disorder;
 KW heart disorder; ischaemic heart disease; atherosclerosis; neoplasm;
 KW histological type; carcinogenic; ovarian cancer marker.
 XX Homo sapiens.
 OS WO200271928-A2.
 XX 19-SEP-2002.
 PD 14-MAR-2002; 2002WO-US007826.
 PF

XX 14-MAR-2001; 2001US-0276025P.
 PR 14-MAR-2001; 2001US-0276026P.
 PR 10-AUG-2001; 2001US-0311732P.
 PR 19-SEP-2001; 2001US-0323580P.
 PR 26-SEP-2001; 2001US-0324967P.
 PR 26-SEP-2001; 2001US-0325102P.
 PR 26-SEP-2001; 2001US-0325149P.
 XX (MILL-) MILLENNIUM PHARM INC.
 XX Monahan JE, Gannavarapu M, Hoersch S, Kamatkar S, Kovatis SG;
 PI Meyers RE, Morrissey MP, Olandt PJ, Sen A, Vieby PO, Mills GB;
 PI Bast RC, Lu K, Schmandt RE, Zhao X, Giatt K;
 DR WPI; 2002-723277/78.
 DR N-PSDB; ABS76441.
 XX Assessing whether a patient is afflicted with ovarian cancer, useful in
 PT assessing the stage or progression of the disease, comprises comparing
 PT the expression level of a cancer marker in a sample from a patient and
 PT from a non cancer patient.
 PS Disclosure; Page 261; 481pp; English.
 XX The present invention relates to a new method for assessing whether a
 CC patient is afflicted with ovarian cancer. The method involves comparing
 CC the expression level of a marker in a patient sample and the normal level
 CC of expression of the marker in a control non-ovarian cancer sample, where
 CC the marker is selected from 363 cancer markers described in the
 CC specification. The method of the invention is useful in diagnosing or
 CC characterising cancer, in detecting the presence of cancer as early as
 CC possible, and the recurrence of ovarian cancer. The method may also be of
 CC particular use with patients having an enhanced risk of developing
 CC ovarian cancer (e.g. patients having a familial history of ovarian
 CC cancer). The cancer markers may be used in the management and treatment
 CC of e.g. brain and central nervous system disorders (e.g. bacterial and
 CC viral meningitis, Alzheimer's disease or Parkinson's disease), brain
 CC disorders (e.g. cerebral oedema, hydrocephalus or brain herniations),
 CC inflammations (e.g. bacterial or viral meningitis or encephalitis),
 CC testicular disorders (e.g. nontuberculous granulomatous orchitis),
 CC connective tissue disorders, or heart disorders (e.g. ischaemic heart
 CC disease or atherosclerosis). The compositions and methods may also be
 CC used in assessing the histological type of neoplasm associated with
 CC ovarian cancer, monitoring the progression of ovarian cancer, determining
 CC whether ovarian cancer has metastasized or is likely to metastasize,
 CC selecting a composition for inhibiting ovarian cancer, assessing the
 CC ovarian carcinogenic potential of a compound, or inhibiting ovarian
 CC cancer or at risk of developing ovarian cancer. The present amino acid
 CC sequence represents one of the ovarian cancer markers described in the
 CC invention
 XX SQ Sequence 180 AA;
 Query Match 100.0%; Score 191; DB 5; Length 180;
 Best Local Similarity 100.0%; Pred. No. 2.9e-18;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34
 DB 93 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 126
 RESULT 10
 ID ABP54951 standard; protein; 180 AA.
 AC ABP54951;
 XX 13-JAN-2003 (first entry)
 DT Human IGF2.
 XX

KW IGF2; tyrosine threonine kinase; TTK, colon cancer; breast cancer;
KM tumour; cytosol; human; gene therapy.
XX Homo sapiens.
XX WO200268444-A1.
XX 06-SEP-2002.
XX 21-FEB-2002; 2002WO-US005278.
XX 21-FEB-2001; 2001US-0271254P.
XX (CHIR) CHIRON CORP.
XX Reinhard C, Jefferson AB, Chan VM;
XX WPI; 2002-698650/75.
XX N-PSDB; ABV73997.
XX
XX Reducing growth of cancer cells comprises reducing Tyrosine Threonine
PT Kinase (TTK) activity, useful in diagnosing and treating disorders with
PT abnormal expression levels and activity of TTK, such as lung, colon,
PT prostate and ovarian cancer.
XX
XX Disclosure; Page 11; 113pp; English.
XX
XX The present sequence is the protein sequence of human IGF2. This is an
CC example of a gene product that is differentially expressed in cancer
CC cells relative to non-cancer cells, or between cancer cells of different
CC malignant potential. Such genes, and their gene products, can be assayed
CC in addition to tyrosine threonine kinase (TTK, see ABP54938), in methods
CC of the invention for differential expression in a test cell. The
CC invention is based on the finding that TTK is differentially expressed in
CC various forms of cancer. Methods are provided for the identification of
CC cancerous cells, especially breast cancer and colon cancer cells, by
CC detection of expression levels of TTK, as well as diagnostic, prognostic
CC and therapeutic methods based on differential expression. These methods
CC can be used as the basis of rational therapy. Assays for identifying
CC molecules that modulate the activity of these genes in cancers, as well
CC as methods of inhibiting tumour growth by inhibiting the activity of TTK
CC are also provided
XX
XX Sequence 180 AA;
SQ
Query Match 100.0%; Score 191; DB 5; Length 180;
Best Local Similarity 100.0%; Pred. No. 2.9e-18;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 34
Db 93 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 126
RESULT 11
ID ABR48184 standard; protein; 180 AA.
XX ABR48184;
AC ABR48184;
XX 12-JUN-2003 (first entry)
XX
XX Human bladder cancer associated protein sequence SEQ ID NO:84.
DE Human; bladder cancer; cytosol; gene therapy; vaccine.
XX Homo sapiens.
XX WO2003003906-A2.
XX 16-JAN-2003.
XX 03-JUL-2002; 2002WO-US021338.
XX

XX 03-JUL-2001; 2001US-0302814P.
PR 03-AUG-2001; 2001US-0310099P.
XX 08-NOV-2001; 2001US-0343705P.
PR 13-NOV-2001; 2001US-0350666P.
XX 12-APR-2002; 2002US-0372246P.
XX (EOSB-) EOS BIOTECHNOLOGY INC.
XX Mack DH, Aziz N;
XX WPI; 2003-201532/19.
XX N-PSDB; ACC50995.
XX
XX Detecting a bladder cancer-associated transcript in a cell from a
PT patient, comprises contacting a biological sample from the patient with a
PT bladder cancer-associated polynucleotide or antibody.
XX
XX Claim 10; Page 262; 307pp; English.
XX
XX The present invention describes a method for detecting a bladder cancer-
CC associated transcript in a cell from a patient. The method comprises
CC contacting a biological sample from the patient with a polynucleotide
CC that selectively hybridises to a sequence that is 80 % identical to a
CC table of sequences (see ACC50951 to ACC51059). ACC50951 to ACC51059
CC encode the human bladder cancer-associated proteins given in ABR48146 to
CC ABR48242). Bladder cancer-associated sequences from the present invention
CC have cytostatic activities, and can be used in antisense gene therapy and
CC in vaccine production. The method can be used for detecting a bladder
CC cancer-associated transcript in a cell from a patient. The method is
CC useful in diagnosing or treating bladder cancer and in screening for
CC compounds that modulate bladder cancer, such as hormones or antibodies.
CC The nucleic acid molecules from the present invention may be used in
CC various screening and diagnostic methods, and for gene therapy, vaccine
CC and/or antisense/inhibition applications
XX
XX Sequence 180 AA;
SQ
Query Match 100.0%; Score 191; DB 6; Length 180;
Best Local Similarity 100.0%; Pred. No. 2.9e-18;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 34
Db 93 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 126
RESULT 12
ID AAE33320 standard; protein; 180 AA.
XX AAE33320;
AC AAE33320;
XX 02-APR-2003 (first entry)
XX
XX Human insulin-like growth factor 2 (IGF-II).
DE Human insulin-like growth factor 2 (IGF-II).
XX
XX Lysosome; metabolic disease; lysosomal storage disease; gene therapy;
XX Gaucher's disease; Pompe's disease; Hurler's syndrome; neuroprotective;
XX Niemann-Pick's disease; Schindler's disease; mucopolysaccharidosis; cystinosis;
XX Batten's disease; prosoptin; infantile neuronal ceroid lipofuscinosis;
XX fucosidosis; mannosidosis; antilipemic; insulin-like growth factor 2;
XX IGF-II; human.
XX Homo sapiens.
XX
XX Key Location/Qualifiers
FH Peptide 1..24
FT Protein /label= Signal_peptide
FT 25..180 /note= "Human mature IGF-II protein"
XX WO200287510-A2.
XX

Pt	Reinhard C,	Jefferson AB,	Chan VW;
Pt	WPI: 2003-456566/43.		
Df	N-PsDB; AChA62274.		
Pt	Detecting cancer in a subject, by comparing expression levels of tyrosine		
Pt	threonine kinase polypeptide or polynucleotide in a subject cell and a		
Pt	normal cell, where an increase in the expression level in the test cell		
Pt	is indicative of cancer.		
Fs	Disclosure; Page 64-65; 79pp; English.		
Cc	The invention relates to detecting cancer (other than ovarian cancer) in		
Cc	a subject, comprising comparing the expression levels of tyrosine		
Cc	threonine kinase (TRK, a mitotic checkpoint gene) polypeptide or		
Cc	polynucleotide in a test cell obtained from the subject and in a normal		
Cc	non-cancer cell, where an increase in the expression level of TRK protein		
Cc	or nucleic acid in the test cell compared to that in the normal cell,		
Cc	indicates the presence of cancer other than ovarian cancer. Also included		
Cc	are reducing growth of a cancerous cell (by contacting a cancerous cell		
Cc	with an amount of an agent effective to reduce TRK polypeptide activity		
Cc	in the cell), an assay for identifying a candidate agent that reduces		
Cc	growth of a cancerous cell (comprising: (i) detecting the activity of a		
Cc	TRK polypeptide in the presence of a candidate agent; and (ii) comparing		
Cc	the activity of TRK polypeptide in the presence of a candidate agent		
Cc	relative to TRK polypeptide activity in the absence of the candidate		
Cc	agent), identifying an agent that reduces TRK activity (comprising: (i)		
Cc	contacting a cancerous cell displaying elevated expression of a TRK-		
Cc	encoding polynucleotide with a candidate agent; and (ii) determining the		
Cc	effect of the candidate agent on TRK polypeptide activity) and assessing		
Cc	the prognosis of a cancerous disease other than ovarian cancer in a		
Cc	subject (comprising: (i) detecting expression of TRK -encoding		
Cc	polynucleotide in a test cancer cell of a subject; and (ii) comparing a		
Cc	level of expression of TRK-encoding polynucleotide in the test cancer		
Cc	cell with a level of expression of the polynucleotide in a control non-		
Cc	cancer cell, where the level of expression of TRK in the test cancer cell		
Cc	indicative of the level of expression in the control non-cancer cell is		
Cc	indicative of the prognosis of the cancerous disease). The methods are		
Cc	useful for detecting cancer (other than ovarian cancer) in a subject,		
Cc	reducing growth of cancerous cells, identifying a candidate agent that		
Cc	reduces growth of a cancerous cell, identifying an agent that reduces TRK		
Cc	activity and assessing the prognosis of a cancerous disease other than		
Cc	ovarian cancer. The methods are also useful for determining the ability		
Cc	of a subject to respond to a particular therapy e.g. as a basis of		
Cc	rational therapy. The present sequence represents another protein which		
Cc	is differentially expressed in cancer tissues, in this case human IGF2		
Cc	(insulin-like growth factor)		
SQ	Sequence 180 AA:		
Query Match	100.0%;	Score 191;	DB 7; Length 180;
Best Local Similarity	100.0%;	Mism. No. 2,9e-18;	
Matches 34;	Conservative 0;	Pident 0;	Gaps 0;
Db	1 DVSTPPTVLPDNEPRYPVGKFPDYDTMKOSTORL 34		
	93 DVSTPPTVLPDNEPRYPVGKFPDYDTMKOSTORL 126		
RESULT 14			
ADB80535			
ID	ADB80535 standard; protein; 180 AA.		
XX	AC	ADB80535;	
XX	DT	04-DEC-2003 (first entry)	
DE	XX	Ovarian cancer-associated protein #50.	
XX	cytostatic; gene therapy; vaccine; ovarian cancer; diagnosis;		
KM	post-operative chemotherapy; radiation therapy; tumour prognosis;		
KM	pre-cancerous lesion detection.		

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XX OS Homo sapiens.
XX PN WO2002102235-A2.
XX PD 27-DEC-2002.
XX PF 18-JUN-2002; 2002WO-US019297.
XX PR 18-JUN-2001; 2001US-0299234P.
XX PR 27-AUG-2001; 2001US-0315287P.
XX PR 05-SEP-2001; 2001US-0317544P.
XX PR 13-NOV-2001; 2001US-0350666P.
XX PR 12-APR-2002; 2002US-0372246P.
XX PA (EOSB-) EOS BIOTECHNOLOGY INC.
XX PI Mack DH, Gish KC;
XX DR WPI; 2003-167431/16.
XX DR N-PSDB; ADB80534.
XX PT Detecting an ovarian cancer-associated transcript in a cell from a
XX PT patient comprises contacting a biological sample from the patient with a
XX PT polynucleotide that hybridizes to an ovarian cancer gene.
XX PS Claim 13; Page 309; 332pp; English.
XX CC The invention relates to a method of detecting an ovarian cancer-
XX CC associated transcript in a cell from a patient, by contacting a
XX CC biological sample from the patient with a polynucleotide that selectively
XX CC hybridizes to a sequence at least 80% identical to any of one of 80
XX CC nucleic acid sequences given in the specification. The method is useful
XX CC in diagnosing ovarian cancer and in identifying and using agents and/or
XX CC targets that inhibit ovarian cancer. The nucleic acid molecule,
XX CC polypeptide and the antibody may also be used in detecting ovarian
XX CC cancers, monitoring and early detection or relapse following ovarian
XX CC monitoring response to therapy, selecting patients for post-operative
XX CC chemotherapy or radiation therapy, in selecting pre-cancerous lesions,
XX CC chemotherapeutic tumour prognosis, early detection of pre-cancerous lesions,
XX CC and as vaccines. This sequence corresponds to one of the proteins used
XX CC for the detection method of the invention.
XX SQ Sequence 180 AA;
XX
XX Query Match 100.0%; Score 191; DB 7; Length 180;
XX Best Local Similarity 100.0%; Pred. No. 2.9e-18;
XX Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34
DB 93 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 126

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XX PF 14-AUG-2002; 2002WO-US025765.
XX PR 14-AUG-2001; 2001US-0312147P.
XX PR 01-NOV-2001; 2001US-0346382P.
XX PR 26-NOV-2001; 2001US-0333347P.
XX PA (GENO) GEN HOSPITAL CORP.
XX PA (FARB) BAYER AG.
XX PI Woolf C, D'urso D, Befort K, Costigan M;
XX DR WPI; 2003-268312/26.
XX DR GENBANK; P01344.
XX PT New composition comprising two or more isolated polypeptides, useful for
XX PT preparing a medicament for treating pain in an animal.
XX PS Claim 1; Page; 1017pp; English.
XX CC The invention discloses a composition comprising two or more isolated rat
XX CC or human polynucleotides or a polynucleotide which represents a fragment,
XX CC derivative or allelic variation of the nucleic acid sequence. Also
XX CC claimed are a vector comprising the novel polynucleotide, a host cell
XX CC comprising the vector, a method for identifying a nucleotide sequence
XX CC which is differentially regulated in an animal subjected to pain and a
XX CC kit to perform the method, an array, a method for identifying an agent
XX CC that increases or decreases the expression of the polynucleotide sequence
XX CC that is differentially expressed in neuronal tissue of a first animal
XX CC subjected to pain, a method for identifying a compound which regulates
XX CC the expression of a polynucleotide sequence which is differentially
XX CC expressed in an animal subjected to pain, a method for identifying a
XX CC compound that regulates the activity of one or more of the
XX CC polynucleotides, a method for producing a pharmaceutical composition, a
XX CC method for identifying a compound or small molecule that regulates the
XX CC activity in an animal of one or more of the polypeptides given in the
XX CC specification, a method for identifying a compound useful in treating
XX CC pain and a pharmaceutical composition comprising the one or more
XX CC polypeptides or their antibodies. The polynucleotide or the compound that
XX CC modulates its activity is useful for preparing a medicament for treating
XX CC pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
XX CC injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
XX CC therapy). The sequence presented is a human protein (shown in Table 2 of
XX CC the specification) which is differentially expressed during pain. Note:
XX CC The sequence data for this patent did not form part of the printed
XX CC specification, but was obtained in electronic form directly from WIPRO at
XX CC ftp.wipro.int/pub/published_pct_sequences.
XX SQ Sequence 180 AA;
XX
XX Query Match 100.0%; Score 191; DB 7; Length 180;
XX Best Local Similarity 100.0%; Pred. No. 2.9e-18;
XX Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34
DB 93 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 126

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Search completed: May 21, 2006, 12:37:32
 Job time : 120.333 secs

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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:37:56 ; Search time 19.6667 Seconds
(without alignments)
166.341 Million cell updates/sec

Title: US-10-632-366-1

Perfect score: 191
Sequence: 1 DVSTPPTVLPDNFPRYVGKFRQYDWMKSTQRL 34

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR 80:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	length	DB ID	Description
1	191	100.0	180	1	IGHU2
2	191	100.0	183	2	I67610
3	191	100.0	183	2	S02423
4	182	95.3	181	2	B60738
5	160	83.8	128	2	I57671
6	150	78.5	180	2	A24913
7	142	74.3	179	2	S04858
8	142	74.3	180	1	IGRT2
9	138	72.3	155	1	IGBO2
10	135	60.2	93	2	I53642
11	58	30.4	380	2	S16891
12	55	28.8	627	2	G81719
13	54	28.3	216	2	C84900
14	52.5	27.5	418	2	B72565
15	52	27.2	263	2	AB2789
16	52	27.2	268	2	C97568
17	52	27.2	270	2	G64603
18	52	27.2	270	2	G71809
19	52	27.2	483	2	S25606
20	52	27.2	650	2	T48060
21	51.5	27.0	751	2	TVVPTH
22	51	26.7	404	2	T37762
23	51	26.7	1896	2	T08851
24	50	26.2	350	2	H86516
25	50	26.2	550	2	A72106
26	50	26.2	681	2	T33381
27	50	26.2	962	2	T51924
28	50	26.2	965	2	T32574
29	49.5	25.9	463	1	P2W13

30	49.5	25.9	869	2	A95156	conserved hypothet
31	49.5	25.9	878	2	D98022	conserved hypothet
32	49	25.7	108	2	T17599	hypothetical prote
33	49	25.7	177	2	E83907	thermonuclease [im
34	49	25.7	199	2	AH3320	hypothetical prote
35	49	25.7	329	2	T10064	cytokinin-induced
36	49	25.7	1013	2	T33470	hypothetical prote
37	49	25.7	1034	2	A24925	beta-galactosidase
38	49	25.7	1598	2	T13800	coracle gene prote
39	48.5	25.4	100	2	C72667	hypothetical prote
40	48.5	25.4	474	2	G84543	probable protein k
41	48.5	25.4	957	2	T03829	transcription fact
42	48.5	25.4	978	2	T03763	BAP-135 protein ho
43	48.5	25.4	998	2	T09492	general transcript
44	48.5	25.4	1230	2	S53974	hypothetical prote
45	48.5	25.4	1874	1	U00533	genome polypeptid

ALIGNMENTS

RESULT 1

IGHU2
insulin-like growth factor II precursor [validated] - human

N/Alternate names: somatomedin A
C/Species: Homo sapiens (man)

C/Date: 24-Apr-1984 #sequence revision 15-Nov-1984 #text change 09-Jul-2004
C/Accession: B23614; A93339; A28300; A30155; I56957; A93338; A91448; B60483; A33845; A61

R/de Pagter-Holthuisen, P.; van Schaik, F.M.A.; Verdulijn, G.M.; van Ommen, G.J.B.; Boum-
FEBS Lett. 195, 179-184, 1986

A/Title: Organization of the human genes for insulin-like growth factors I and II.
A/Reference number: A91356; PMID:8610862; PMID:3002851

A/Accession: B23614
A/Molecule type: DNA

A/Residues: 1-180 <DEP>
A/Cross-references: UNIPROT:P01344; UNIPARC:UPI0000000965

R/Null, T.J.; Gray, A.; Hayflick, J.S.; Ullrich, A.
Nature 310, 777-781, 1984

A/Title: Insulin-like growth factor II precursor gene organization in relation to insulin
A/Reference number: A93339; PMID:84295593; PMID:6382022

A/Accession: A93339
A/Molecule type: DNA

A/Residues: 1-180 <DUL>
A/Cross-references: UNIPARC:UPI0000000965; GB:M1418; NID:q183094; PIDN:AAA5253.1; PID

R/Triminger, J.C.; Rosen, K.M.; Humbel, R.E.; Villa-Komaroff, L.
Proc. Natl. Acad. Sci. U.S.A. 84, 6330-6334, 1987

A/Title: Tissue-specific expression of insulin-like growth factor II mRNAs with distinct
A/Reference number: A28300; PMID:87317645; PMID:3476948

A/Accession: A28300
A/Molecule type: mRNA

A/Residues: 1-180 <IRM>
A/Cross-references: UNIPARC:UPI0000000965; GB:M17426; NID:q189954; PIDN:AAA60088.1; PID

R/Shen, S.J.; Daimon, M.; Wang, C.Y.; Jansen, M.; Ilan, J.
Proc. Natl. Acad. Sci. U.S.A. 85, 1947-1951, 1988

A/Title: Isolation of an insulin-like growth factor II cDNA with a unique 5' untranslated
A/Reference number: A30155; PMID:88158110; PMID:2450353

A/Accession: A30155
A/Molecule type: mRNA

A/Residues: 1-180 <SHE>
A/Cross-references: UNIPARC:UPI0000000965; GB:J03242; NID:q183123; PIDN:AAA52545.1; PID

R/Hagwar, K.; Kobayashi, T.; Tobita, M.; Kikyo, N.; Yazaki, Y.; Okabe, T.
Upn. J. Cancer Res. 86, 202-207, 1995

A/Title: Isolation of a cDNA for a growth factor of vascular endothelial cells from huma
A/Reference number: I56957; PMID:95247546; PMID:7730145

A/Accession: I56957
A/Status: translated from GB/EMBL/DBJ

A/Molecule type: mRNA
A/Residues: 1-180 <HAG>

A/Cross-references: UNIPARC:UPI0000000965; GB:S77035; NID:q914191; PIDN:AAA34155.1; PID
A/Experimental source: lung cancer cell line T3M-11

R/Bell, G.I.; Merryweather, J.P.; Sanchez-Pescador, R.; Stempfen, M.M.; Priestley, L.; &
Nature 310, 775-777, 1984
A/Title: Sequence of a cDNA clone encoding human preproinsulin-like growth factor II.

A:Reference number: A93338; MWID:84295592; PMID:6382021
 A:Accession: A93338
 A:Molecule type: mRNA
 A:Residues: 1-180 <REL>
 A:Cross-references: UNIPARC:UPI0000000965; GB:X00910; GB:M17862; NID:G32995; PIDN:CAA254
 R:Rindknecht, E.; Humbel, R.E.
 FEBS Lett. 89, 283-286, 1978
 A:Title: Primary structure of human insulin-like growth factor II.
 A:Reference number: A91448; MWID:78191259; PMID:658418
 A:Accession: A91448
 A:Molecule type: protein
 A:Residues: 25-91 <RIN>
 A:Cross-references: UNIPARC:UPI000002CB81
 R:Karey, K.P.; Marguardt, H.; Sidsaek, D.A.
 Blood 74, 1084-1092, 1989
 A:Title: Human platelet-derived mtogene. Identification of insulinlike growth factors I
 A:Reference number: A60483; MWID:89333462; PMID:2752153
 A:Accession: B60483
 A:Molecule type: protein
 A:Residues: 25-32, 'X', 34-44 <KAR>
 A:Cross-references: UNIPARC:UPI000017358A
 A:Experimental source: platelet lysate
 R:Smith, M.C.; Cook, J.A.; Furman, T.C.; Occolowicz, J.L.
 J. Biol. Chem. 264, 9314-9321, 1989
 A:Title: Structure and activity dependence of recombinant human insulin-like growth fact
 A:Reference number: A33845; MWID:89255428; PMID:2722836
 A:Accession: A33845
 A:Molecule type: protein
 A:Residues: 25-91 <SMI>
 A:Cross-references: UNIPARC:UPI000002CB81
 R:Mohan, S.
 Growth Factors 2, 267-271, 1990
 A:Title: A simple and efficient scheme for the purification of insulin-like growth facto
 A:Reference number: A61037; MWID:90248152; PMID:2337472
 A:Accession: A61037
 A:Molecule type: protein
 A:Residues: 25-32 <MOH>
 A:Cross-references: UNIPARC:UPI000017358B
 A:Note: this protein was purified from D9E, where it comprises 0.1 % of total protein
 R:Jansen, M.; van Schaik, F.M.; van Tol, H.; Van den Brande, J.L.; Sussenbach, J.S.
 FEBS Lett. 179, 243-246, 1985
 A:Title: Nucleotide sequences of cDNAs encoding precursors of human insulin-like growth
 A:Reference number: 153458; MWID:85102019; PMID:3881277
 A:Accession: 153458
 A:Status: translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 1-180 <RES>
 A:Cross-references: UNIPARC:UPI0000000965; GB:M17862; NID:G32995; PIDN:CAA25426.1; PID:G
 A:Note: an alternatively spliced form was also found, in which 53-ser is replaced by Arg
 R:Ball, L.B.; Scott, J.; Bell, G.I.
 Meth. Enzymol. 146, 239-248, 1987
 A:Title: Human insulin-like growth factor I and II messenger RNA: isolation of complemen
 A:Reference number: 157044; MWID:88065102; PMID:3683205
 A:Accession: 176705
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 1-2, 'W', 4-180 <RES>
 A:Cross-references: UNIPARC:UPI000016A990; GB:M29645; NID:G183121; PIDN:AAA52544.1; PID:
 R:Gray, A.; Tam, A.W.; Dull, T.J.; Hayflick, J.; Pintar, J.; Cavenee, W.K.; Koulos, A.;
 DNA 6, 283-295, 1987
 A:Title: Tissue-specific and developmentally regulated transcription of the insulin-like
 A:Reference number: 152978; MWID:88003966; PMID:3652904
 A:Accession: 152978
 A:Status: translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-52 <R22>
 A:Cross-references: UNIPARC:UPI000016A98E; GB:M22373; NID:G183100; PIDN:AAA52536.1; PID:
 C:Genetics: GDB:IGF2
 A:Gene: GDB:IGF2
 A:Cross-references: GDB:119331; OMIM:147470
 A:Map position: 11p15.5-11p15.5
 C:Superfamily: insulin
 C:Keyword: alternative splicing; angiogenesis; growth factor; monomer

F:1-24/Domain: signal sequence #status predicted <SIG>
 F:25-91/Product: insulin-like growth factor II #status experimental <MAT>
 F:125-180/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
 F:13-11, 45-84, 70-75/Disulfide bonds: #status experimental
 Query Match 100.0%; Score 191; DB 1; Length 180;
 Best local similarity 100.0%; Pred. No. 4e-19;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 DVSTPTVLPDNPFRYPVGVKFFQYDTWKSTORL 34
 |||||
 DB 93 DVSTPTVLPDNPFRYPVGVKFFQYDTWKSTORL 126
 |||||
 RESULT 2
 167610
 insulin-like growth factor II, domains A-E - human
 C:Species: Homo sapiens (man)
 C:Date: 04-Oct-1996 #sequence_revision 04-Oct-1996 #text_change 16-Jul-1999
 C:Accession: 167610
 R:Jansen, M.; van Schaik, F.M.; van Tol, H.; Van den Brande, J.L.; Sussenbach, J.S.
 FEBS Lett. 179, 243-246, 1985
 A:Title: Nucleotide sequences of cDNAs encoding precursors of human insulin-like growth
 A:Reference number: 153458; MWID:85102019; PMID:3881277
 A:Accession: 167610
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 1-183 <RES>
 A:Cross-references: UNIPARC:UPI000016A8E9; GB:M17863; NID:G182527; PIDN:AAA52443.1; PID:
 C:Genetics: GDB:IGF2
 A:Gene: GDB:IGF2
 A:Cross-references: GDB:119331; OMIM:147470
 A:Map position: 11p15.5-11p15.5
 C:Superfamily: insulin
 Query Match 100.0%; Score 191; DB 2; Length 183;
 Best local similarity 100.0%; Pred. No. 4.1e-19;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 DVSTPTVLPDNPFRYPVGVKFFQYDTWKSTORL 34
 |||||
 DB 96 DVSTPTVLPDNPFRYPVGVKFFQYDTWKSTORL 129
 |||||
 RESULT 3
 S02423
 insulin-like growth factor II precursor, splice form II - human
 N:Alternate names: somatomedin A
 C:Species: Homo sapiens (man)
 C:Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change 09-Jul-2004
 C:Accession: S02423; S03383; A34439
 R:Le Bouc, Y.; Noguez, P.; Sondermeijer, P.; Dreyer, D.; Girard, F.; Binoux, M.
 FEBS Lett. 222, 181-185, 1987
 A:Title: A new 5'-non-coding region for human placental insulin-like growth factor II mR
 A:Reference number: S02423; MWID:88005137; PMID:3653197
 A:Accession: S02423
 A:Status: not compared with conceptual translation
 A:Molecule type: mRNA
 A:Residues: 1-183 <LE1>
 A:Cross-references: UNIPROT:P01344; UNIPARC:UPI000002ABR8; EMBL:Y00693
 A:Note: 53-Ser was also found instead of residues 53-56 (Arg-Leu-Pro-Gly)
 R:de Payer-Holhuizen, P.; Jansen, M.; van der Kammen, R.A.; van Schaik, F.M.A.; Suseer
 Biochim. Biophys. Acta 950, 282-295, 1988
 A:Title: Differential expression of the human insulin-like growth factor II gene. Charac
 A:Reference number: S03383; MWID:89000779; PMID:3167054
 A:Accession: S03383
 A:Status: translation not shown
 A:Molecule type: DNA
 A:Residues: 106-183 <DEP>
 A:Cross-references: UNIPARC:UPI000016AAE7; EMBL:X07868; NID:G32996; PIDN:CAA30717.1; PIL
 R:Hampton, B.; Burgess, W.H.; Marshak, D.R.; Cullen, K.J.; Perdue, J.F.
 J. Biol. Chem. 264, 19155-19160, 1989
 A:Title: Purification and characterization of an insulin-like growth factor II variant }

A:Reference number: A34439; MUID:90037048; PMID:2553732
A:Accession: A34439
A:Molecule type: protein
A:Residues: 25-32,'X','34-44','X',46-59 <HAM>
A:Cross-references: UNIPARC:UPI0000176678
C:Genetics:
A:Gene: GDB:IGF2
A:Cross-references: GDB:119331; OMIM:147470
A:Map position: 11p15.5-11p15.5
A:Superfamily: Insulin
C:Keywords: growth factor
F:1-24/Domain: signal sequence #status predicted <SIG>
F:25-99/Product: insulin-like growth factor II #status predicted <MNT>
F:60-67/Domain: insulin chain B-like #status experimental <DOB>
F:68-86/Domain: insulin connecting C peptide-like #status predicted <CEP>
F:89-94/Domain: D peptide #status predicted <DDP>
F:95-183/Domain: carboxyl-terminal propeptide (B peptide) #status predicted <CTP>
F:33-74,45-87,73-78/Disulfide bonds: #status predicted

Query Match 100.0%; Score 191; DB 2; Length 183;
Best Local Similarity 100.0%; Pred. No. 4,1e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 34
DB 96 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 129

RESULT 4
B60738
Insulin-like growth factor II precursor - pig
C:Species: Sus scrofa domestica (domestic pig)
C>Date: 28-Apr-1993 #sequence, revision 30-Sep-1993 #text_change 13-Nov-1998
C:Accession: S12614; B60738
R:Catchpole, I.R.; Engstrom, W.
Nucleic Acids Res. 18, 6430, 1990
A:Title: Nucleotide sequence of a porcine insulin-like growth factor II cDNA.
A:Reference number: S12614; MUID:91057116; PMID:2243790
A:Accession: S12614
A:Molecule type: mRNA
A:Residues: 1-181 <CAT>
A:Cross-references: UNIPARC:UPI0000176673
R:Francis, G.L.; Owens, P.C.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.
J. Endocrinol. 122, 681-687, 1989
A:Title: Purification, amino acid sequences and assay cross-reactivities of porcine insulin-like growth factor II.
A:Reference number: A60738; MUID:90039035; PMID:2809477
A:Accession: B60738
A:Molecule type: protein
A:Residues: 25-79,'X','81-91 <PPA>
A:Cross-references: UNIPARC:UPI0000176674
C:Superfamily: Insulin
F:1-24/Domain: signal sequence #status predicted <SIG>
F:25-91/Product: insulin-like growth factor II #status experimental <MNT>
F:92-181/Domain: carboxyl-terminal propeptide (B peptide) #status predicted <CTP>
F:33-71,45-84,70-75/Disulfide bonds: #status predicted

Query Match 95.3%; Score 182; DB 2; Length 181;
Best Local Similarity 94.1%; Pred. No. 7,2e-18;
Matches 32; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 34
DB 93 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 126

RESULT 5
I57671
Insulin-like growth factor II - guinea pig
C:Species: Cavia porcellus (guinea pig)
C>Date: 02-Aug-1996 #sequence, revision 02-Aug-1996 #text_change 09-Jul-2004
C:Accession: I57671
R:Levinovitz, A.; Norstedt, G.; van den Berg, S.; Robinson, I.C.; Ekstrom, T.J.

Mol. Cell. Endocrinol. 89, 105-110, 1992
A:Title: Isolation of an insulin-like growth factor II cDNA from guinea pig liver: expr
A:Reference number: I57671; MUID:93246007; PMID:1301379
A:Accession: I57671
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-128 <RES>
A:Cross-references: UNIPROT:Q08279; UNIPARC:UPI000012D408; GB:S558899; NID:g300070; PIDN
C:Superfamily: Insulin

Query Match 83.8%; Score 160; DB 2; Length 128;
Best Local Similarity 85.3%; Pred. No. 5,6e-15;
Matches 29; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 34
DB 93 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 126

RESULT 6
A24913
Insulin-like growth factor II precursor - mouse
C:Species: Mus musculus (house mouse)
C>Date: 07-Mar-1988 #sequence, revision 07-Mar-1988 #text_change 09-Jul-2004
C:Accession: A24913; S35874; I48463; I48464; I59137; S35875
R:Stempien, M.M.; Fong, N.M.; Rall, L.B.; Bell, G.I.
DNA 5, 357-361, 1986
A:Title: Sequence of a placental cDNA encoding the mouse insulin-like growth factor II
A:Reference number: A24913; MUID:87053171; PMID:3780370
A:Accession: A24913
A:Molecule type: mRNA
A:Residues: 1-180 <STE>
A:Cross-references: UNIPROT:P09535; UNIPARC:UPI000020A45; GB:M14951; GB:J04069; GB:M20
A:Accession: S35874
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-52 <RES>
A:Cross-references: UNIPARC:UPI000011613C; EMBL:X71921; NID:g393422; PIDN:CAA50737.1; P
A:Accession: I48464
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 103-180 <RE3>
A:Cross-references: UNIPARC:UPI000011613D; EMBL:X71922; NID:g393424; PIDN:CAA50738.1; P
R:Tollefsen, S.E.; Sadow, J.L.; Rotwein, P.
Proc. Natl. Acad. Sci. U.S.A. 86, 1543-1547, 1989
A:Title: Coordinate expression of insulin-like growth factor II and its receptor during
A:Reference number: I59137; MUID:89160812; PMID:2537977
A:Accession: I59137
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-52 <RE2>
A:Cross-references: UNIPARC:UPI000011613C; GB:M24633; NID:g341211; PIDN:AAA37923.1; PID

Query Match 78.5%; Score 150; DB 2; Length 180;
Best Local Similarity 79.4%; Pred. No. 2e-13;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 34
DB 93 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTORL 126

RESULT 7
S04858
Insulin-like growth factor II precursor - sheep
C/Species: Ovis orientalis aries. Ovis ammon aries (domestic sheep)
C/Date: 07-Jun-1990 #sequence revision 07-Jun-1990 #ext change 09-Jul-2004
C/Accession: S04858; S10984; S20731; S04972; S32557; S32558; A61008; S08567
R/O'Mahoney, J.V.; Adams, T.E.
Nucleic Acids Res. 17, 5392, 1989
A/Title: Nucleotide sequence of an ovine insulin-like growth factor-II cDNA.
A/Reference number: S04858; NMID:89345107; PMID:2762134
A/Accession: S04858
A/Molecule type: mRNA
A/Residues: 1-179 <OMA>
A/Cross-references: UNIPROT:P10764; UNIPARC:UPI000012D40F; EMBL:X15248; NID:G1802; PIDN:
R.Brown, W.M.; Dziegielewska, K.M.; Foreman, R.C.; Saunders, N.R.
Nucleic Acids Res. 18, 4614, 1990
A/Title: The nucleotide and deduced amino acid sequences of insulin-like growth factor I
A/Reference number: S10983; NMID:90356421; PMID:2388846
A/Accession: S10984
A/Molecule type: mRNA
A/Residues: 1-179 <BRO>
A/Cross-references: UNIPARC:UPI000012D40F; EMBL:X53554; NID:G1262; PIDN:CAA37621.1; PID:
R.O'Brien, S.M.; Wong, E.A.
Submitted to the EMBL Data Library, September 1990
A/Reference number: S20731
A/Accession: S20731
A/Status: preliminary
A/Molecule type: mRNA
A/Residues: 1-179 <OHL>
A/Cross-references: UNIPARC:UPI000012D40F; EMBL:X55638; NID:G1266; PIDN:CAA39163.1; PID:
R.Hey, A.W.; Browne, C.A.; Simpson, R.J.; Thorburn, G.D.
Biochim. Biophys. Acta 997, 27-35, 1989
A/Title: Simultaneous isolation of insulin-like growth factors I and II from adult sheep
A/Reference number: S04972; NMID:89332325; PMID:2752053
A/Accession: S04972
A/Molecule type: protein
A/Residues: 25-58 <HEY>
A/Cross-references: UNIPARC:UPI0000176675
R.Demmer, J.; Hill, D.F.; Petersen, G.B.
Biochim. Biophys. Acta 1173, 79-80, 1993
A/Title: Characterization of two sheep insulin-like growth factor II cDNAs with different
A/Reference number: S32557; NMID:93250051; PMID:8485137
A/Accession: S32557
A/Status: nucleic acid sequence not shown; translation not shown
A/Molecule type: mRNA
A/Residues: 1-179 <DEM>
A/Cross-references: UNIPARC:UPI000012D40F; EMBL:M69788; NID:G165940; PIDN:AAA31548.1; PI
A/Note: the nucleotide sequence was submitted to the EMBL Data Library, March 1992
A/Accession: S32558
A/Status: preliminary; nucleic acid sequence not shown; translation not shown
A/Molecule type: mRNA
A/Residues: 1-120 <DE2>
A/Cross-references: UNIPARC:UPI000016C4C4; EMBL:M69789; NID:G165942; PIDN:AAA31549.1; PI
A/Note: the nucleotide sequence was submitted to the EMBL Data Library, March 1992
R.Stanczek, J.; Heulin, M.H.; Chenuit, A.M.; Belleville, F.; Nabec, P.; Denotroy, L.; Bare
J. Chromatogr. 533, 35-46, 1990
A/Title: Application of preparative high-performance liquid chromatography to the purified
arteries.
A/Reference number: A61008; NMID:91185520; PMID:2081780
A/Accession: A61008
A/Molecule type: protein
A/Residues: 25-32, 'X', '34-44', 'X', '46-55', 'X', '57', 'X', '59-60' <STR>
A/Cross-references: UNIPARC:UPI0000176676
A/Experimental source: fetal serum
R.Francis, G.L.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.; Owens, P.C.
Endocrinology 124, 1173-1183, 1989
A/Title: Sheep insulin-like growth factors I and II: sequences, activities and assays.
A/Reference number: S07198; NMID:89136887; PMID:2537174
A/Accession: S08567
A/Molecule type: protein
A/Residues: 25-45, 'DG', '48-91' <FRA>

A/Cross-references: UNIPARC:UPI0000176677
A/Experimental source: fetal serum
C/Superfamily: Insulin
C/Keywords: growth factor; plasma
F/1-24/Domain: signal sequence #status predicted <SIG>
F/25-91/Product: insulin-like growth factor II #status experimental <MAT>
F/25-91/Product: insulin-like growth factor II #status predicted <DOB>
F/53-64/Domain: insulin connecting peptide-like #status predicted <CHD>
F/65-85/Domain: insulin chain A-like #status predicted <DOA>
F/86-91/Domain: D peptide #status predicted <CHD>
F/92-179/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CPR>
F/3-71, 45-84, 70-75/Diulfide bonds: #status predicted
Query Match 74.3%; Score 142; DB 2; Length 179;
Best Local Similarity 79.4%; Pred. No. 2, 6e-12;
Matches 27; Conservative 1; Mismatches 6; Indels 0; Gaps 0;
OY 1 DVSTPEVLPDNFPYVGKFPQYDTWKQSTQRL 34
DB 93 DVSASTTVLPDPFTAYPVGKFRQSDTWKQSTQRL 126
RESULT 8
IGRT2
Insulin-like growth factor II precursor - rat
N/Alternate names: IGF-II: multiplication stimulating polypeptide
C/Species: Rattus norvegicus (Norway rat)
C/Date: 18-Dec-1981 #sequence revision 04-Dec-1986 #ext change 09-Jul-2004
C/Accession: A25350; A25598; A93554; A23329; A92505; I60178; I58058; I52428; I57695; I52
R.Frunzio, R.; Chiaricelli, L.; Brown, A.L.; Graham, D.E.; Rechler, M.M.; Bruni, C.B.
J. Biol. Chem. 261, 17138-17149, 1986
A/Title: Structure and expression of the rat insulin-like growth factor II (IGF-II) gen
A/Reference number: A25350; NMID:87057436; PMID:3023383
A/Accession: A25350
A/Molecule type: DNA
A/Residues: 1-180 <FRU>
A/Cross-references: UNIPROT:P01346; UNIPARC:UPI000012D40E; GB:M13871; GB:J02637; NID:92C
R.Scares, M.B.; Turken, A.; Ishii, D.; Mills, L.; Episkopou, V.; Cotter, S.; Zeitlin, S
U. Mol. Biol. 192, 737-752, 1986
A/Title: Rat insulin-like growth factor II gene. A single gene with two promoters expres
A/Reference number: A25598; NMID:87226166; PMID:2438416
A/Accession: A25598
A/Molecule type: DNA
A/Residues: 1-180 <SOA>
A/Cross-references: UNIPARC:UPI000012D40E; GB:X02213; NID:956428; PIDN:CAA26136.1; PID:9
R.Bento Soares, M.; Ishii, D.N.; Estraciadis, A.
Nucleic Acids Res. 13, 1119-1134, 1985
A/Title: Developmental and tissue-specific expression of a family of transcripts relat
A/Reference number: A93554; NMID:85215534; PMID:3889836
A/Accession: A93554
A/Molecule type: mRNA
A/Residues: 1-180 <BEN>
A/Cross-references: UNIPARC:UPI000012D40E; GB:X02213; NID:956428; PIDN:CAA26136.1; PID:9
R.Marguier, H.; Todaro, G.J.; Henderson, L.E.; Crosslan, S.
J. Biol. Chem. 256, 6859-6865, 1981
A/Title: Purification and primary structure of a polypeptide with multiplication-stimula
A/Reference number: A92329; NMID:81215670; PMID:7016679
A/Accession: A92329
A/Molecule type: protein
A/Residues: 25-56, 'G', '58-91' <MAR>
A/Cross-references: UNIPARC:UPI0000141BCA
R.Hylik, V.M.; Teplow, D.B.; Kent, S.B.H.; Straus, D.S.
J. Biol. Chem. 260, 14417-14420, 1985
A/Title: Identification of a peptide fragment from the carboxyl-terminal extension regic
A/Reference number: A92505; NMID:86033940; PMID:4055782
A/Accession: A92505
A/Molecule type: protein
A/Residues: 92-180 <HYL>
A/Cross-references: UNIPARC:UPI000017358F
R.Deno, T.; Takahashi, K.; Matsuguchi, T.; Endo, H.; Yamamoto, M.
Biochim. Biophys. Acta 950, 411-419, 1988
A/Title: Transcriptional deviation of the rat insulin-like growth factor II gene initiat
A/Reference number: I60178; NMID:89000793; PMID:3167060

A:Accession: I60178
A>Status: preliminary; translated from GB/EMBL/DDBJ
A:Molecule type: mRNA
A:Residues: 1-180 <RES>
A:Cross-references: UNIPARC:UPI000012D40E; EMBL:X13101; NID:g956412; PIDD:CAA31493.1; PIR:R.Whitfield, H.U.; Bruni, C.B.; Frunzio, R.; Terrell, J.E.; Nislesley, S.P.; Rechler, M.M.
Nature 312, 277-280, 1994
A>Title: Isolation of a cDNA clone encoding rat insulin-like growth factor-II precursor
A:Reference number: I58058; MUID:85061532; PMID:6390212
A:Accession: I58058
A>Status: preliminary; translated from GB/EMBL/DDBJ
A:Molecule type: mRNA
A:Residues: 62-180 <RES>
A:Cross-references: UNIPARC:UPI00001709CB; GB:M30273; NID:g204923; PIDD:AAA41432.1; PID:Riueno, T.; Takahashi, K.; Matsuguchi, T.; Ikejiri, K.; Endo, H.; Yamamoto, M.
Biochim. Biophys. Acta 1009, 27-34, 1989
A>Title: Multiple polyadenylation sites in a large 3'-most exon of the rat insulin-like
A:Reference number: I52428; MUID:90001243; PMID:2477062
A:Accession: I52428
A>Status: preliminary; translated from GB/EMBL/DDBJ
A:Molecule type: mRNA
A:Residues: 103-180 <RES>
A:Cross-references: UNIPARC:UPI000000677; EMBL:X16703; NID:g288512; PIDD:CAA34674.1; PIR:R.Chiarotti, L.; Brown, A.L.P.; Frunzio, R.; Clemmons, D.R.; Rechler, M.M.; Bruni, C.B.
Mol. Endocrinol. 2, 1115-1126, 1988
A>Title: Structure of the rat insulin-like growth factor II transcriptional unit: Heterotrimeric acid splicing.
A:Reference number: I57695; MUID:89127259; PMID:3221878
A:Accession: I57695
A>Status: preliminary; translated from GB/EMBL/DDBJ
A:Molecule type: DNA
A:Residues: 103-180 <RES>
A:Cross-references: UNIPARC:UPI000000677; GB:M31221; NID:g206667; PIDD:AAA42046.1; PID:R.Rechler, M.M.; Bruni, C.B.; Whitfield, H.U.; Yang, Y.W.
Cancer Cells 3, 131-138, 1985
A>Title: Characterization of the biosynthetic precursor for rat insulin-like growth factor
A:Reference number: I52680
A:Accession: I52680
A>Status: preliminary; translated from GB/EMBL/DDBJ
A:Molecule type: mRNA
A:Residues: 27-56, 'G', 58-180 <RES>
A:Cross-references: UNIPARC:UPI000006983; GB:M38688; NID:g204925; PIDD:AAA41433.1; PID:CsComment: Although structurally and functionally related to insulin, the insulin-like growth factor, in vivo, their functions appear to differ. IGF-II is influenced by placental lactogen C:Genetics:
A:Gene: IGFI1
A:Introns: 53/1; 102/3
C:Superfamily: insulin
C:Keywords: growth factor; mitogen; plasma
F:1-94/Domain: signal sequence #status predicted <SIG>
F:25-91/Product: insulin-like growth factor II (active) #status experimental <MAT>
F:25-56/Domain: insulin B chain-like #status experimental <DOB>
F:57-64/Domain: insulin connecting C peptide-like #status experimental <CP>
F:65-85/Domain: insulin A chain-like #status experimental <DOA>
F:86-91/Domain: D peptide #status experimental <DDP>
F:92-180/Domain: carboxyl-terminal propeptide (B peptide) #status experimental <CH>
F:33-71,45-84,70-75/disulfide bonds: #status predicted

Query Match 74.3%; Score 142; DB 1; Length 180;
Best Local Similarity 73.5%; Pred. No. 2,66-12;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

OY 1 DVSTPTVLPDNFPXYVGKFFQYDTWKOSTQRL 34
IGBOZ |||||:::||:::||
Insulin-like growth factor II precursor - bovine
N:Alternate names: IGF-II
C:Species: Bos primigenius taurus (cattle)
C:Date: 31-Mar-1988 #sequence_revision 22-Apr-1995 #text_change 09-Jul-2004

C:Accession: S10983; S37617; B25623; A34645; S00466; A57470
R:Brown, W.M., Dziegielewska, K.M.; Foreman, R.C.; Saunders, N.R.
Nucleic. Acids. Res. 19, 4614, 1990
A:Title: The nucleotide and deduced amino acid sequences of insulin-like growth factor
A:Reference number: S10983; MUID:90356421; PMID:2368846
A:Accession: S10983
A:Molecule type: mRNA
A:Residues: 6-155 <BR2>
A:Cross-references: UNIPROT:P07456; UNIPARC:UPI000016C328; EMBL:X53553; NID:9459; PIDN:
A:Experimental source: liver
R:Congote, L.F.; Mazza, L.; Palfree, R.G.E.
Comp. Biochem. Physiol. B 103, 127-131, 1992
A:Title: Nucleotide sequence of the central coding region of bovine erythrotropin/insulin
time of hepatic erythropoiesis
A:Reference number: S37617; MUID:9083057; PMID:1280544
A:Accession: S37617
A:Molecule type: mRNA
A:Residues: 6-62 <CON>
A:Cross-references: UNIPARC:UPI000016C329; EMBL:X53867; NID:9461; PIDN:CAA37661.1; PID::
A:Experimental source: fetal intestine
R:Honegger, A.; Humbel, R.E.
J. Biol. Chem. 261, 569-575, 1986
A:Title: Insulin-like growth factors I and II in fetal and adult bovine serum. Purifica
A:Reference number: A92585; MUID:86085881; PMID:3941093
A:Accession: B25623
A:Molecule type: protein
A:Residues: 1-34, 'S', '36-67 <HON>
A:Cross-references: UNIPARC:UPI000017358C
R:Li, Q.; Blachner, R.; Esch, F.; Congote, L.F.
Biochem. Biophys. Res. Commun. 166, 557-561, 1990
A:Title: A heparin-binding erythroid cell stimulating factor from fetal bovine serum ha
A:Reference number: A34645; MUID:90147754; PMID:2302223
A:Accession: A34645
A:Molecule type: protein
A:Residues: 1-8, 'X', '10-20, 'X', '22-31 <LIO>
A:Cross-references: UNIPARC:UPI000017358D
R:Francis, G.L.; Upton, F.M.; Ballard, F.J.; McNeil, K.A.; Wallace, J.C.
Biochem. J. 251, 95-103, 1988
A:Title: Insulin-like growth factors 1 and 2 in bovine colostrum. Sequences and biologi
A:Reference number: S00465; MUID:88268820; PMID:3390164
A:Accession: S00466
A:Molecule type: protein
A:Residues: 1-67 <FRA>
A:Cross-references: UNIPARC:UPI0000141BC9
R:Valenzano, K.J.; Remmler, J.; Lobel, P.
J. Biol. Chem. 270, 16441-16448, 1995
A:Title: Soluble insulin-like growth factor II/mannose 6-phosphate receptor carries mul
A:Reference number: A57470; MUID:95332360; PMID:7608216
A:Accession: A57470
A:Status: preliminary
A:Molecule type: protein
A:Residues: 1-5 <VAL>
A:Cross-references: UNIPARC:UPI000017358E
C:Superfamily: Insulin
C:Keywords: colostrum; growth factor; heparin binding; mitogen; plasma
F:1-67/Produce: insulin-like growth factor II #status experimental <MAT>
F:1-27/Domains: insulin B chain-like #status experimental <DOB>
F:28-40/Domains: insulin connecting C peptide-like #status experimental <CPE>
F:41-61/Domains: insulin A chain-like #status experimental <DOA>
F:62-67/Domains: D peptide #status experimental <CHD>
F:68-135/Domains: carboxyl-terminal propeptide (B peptide) #status predicted <CHB>
F:3-47, 21-60, 46-51/Disulfide bonds: #status predicted

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Query Match      72.3% Score 138; DB 1; Length 155;
Best Local Similarity 76.5%; Pred. No. 7.9e-12;
Matches 28; Conservative 1; Mismatches 7; Indels 0; Gaps 0.

QY      1 DVSTPTVLDPDNFPERYPVGKFFQYDITWKQSTQRL 34
      ||| |||||: ||||| ||||| |||||
Db      69 DVSASTVLDPDQVATYAPVGKFFQYDITWKQSTQRL 102

RESULT 10

```

153642
insulin-like growth factor II precursor - horse (fragment)
C/Species: Equus caballus (domestic horse)
C/Date: 15-Oct-1996 #sequence_revision 15-Oct-1996 #text_change 09-Jul-2004
C/Accession: I53642
R/Otte, K.; Engstrom, W.
Gen. Comp. Endocrinol. 96, 270-275, 1994
A>Title: Insulin-like growth factor II in the horse: determination of a cDNA nucleotide
A/Reference number: I53642; MWID:95154655; PMID:7851727
A/Accession: I53642
A/Status: preliminary; translated from GB/EMBL/DBJ
A/Molecule type: mRNA
A/Residues: 1-93 <OTT>
A/Cross-references: UNIPROT:P51459; UNIPARC:UPI000016C420; EMBL:U11241; NID:9508703; PID
A/Genetics:
A/Gene: IGF-II
C/Superfamily: Insulin

Query Match 60.2%; Score 115; DB 2; Length 93;
Best Local Similarity 84.0%; Pred. No. 6.9e-09;
Matches 21; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPFRYPVGKFPQYD 25
|||||
DB 69 DVSTPPTVLPDNPFRYPVGKFPQYN 93

RESULT 11
156891
probable transposase (insertion sequence IS701) - Calothrix sp. (PCC 7601)
C/Species: Calothrix sp.
A/Variety: PCC 7601
C/Date: 21-Nov-1993 #sequence_revision 23-Feb-1996 #text_change 15-Oct-1999
C/Accession: S16891; S16749
R/Mazel, D.; Bernard, C.; Schwarz, R.; Casetis, A.M.; Houmard, J.; Tandeau de Marsac, N.
Mol. Microbiol. 5, 2165-2170, 1991
A>Title: Characterization of two insertion sequences, IS701 and IS702, from the cyanobac
A/Reference number: S16891; MWID:92114795; PMID:1662761
A/Accession: S16891
A/Molecule type: DNA
A/Residues: 1-380 <MAZ>
A/Cross-references: UNIPARC:UPI0000136844; EMBL:X60383; NID:940655; PIDN:CAA42934.1; PID
A/Experimental source: PCC 7601
A/Genetics:
A/Mobile element: insertion sequence IS701
C/Keywords: DNA binding

Query Match 30.4%; Score 58; DB 2; Length 380;
Best Local Similarity 34.7%; Pred. No. 2.9;
Matches 17; Conservative 4; Mismatches 12; Indels 16; Gaps 3;

QY 2 VSTPPTVLPDNPFRYPVGKFPQYD 34
|||||
DB 267 ITTDPENLPDNPNTWYVMSKRPDITPRVGNFGLRTWVEYGLKSNL 315

RESULT 12
681719
signal peptidase, probable TC0289 [imported] - Chlamydia muridarum (strain Nigg)
C/Species: Chlamydia muridarum, Chlamydia trachomatis Mohn
C/Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004
C/Accession: G81719
R/Read, T.D.; Brumham, R.C.; Shen, C.; Gill, S.R.; Heideberg, J.F.; White, O.; Hickey,
C.; Dodson, R.; Gwin, M.; Nelson, W.; Deboy, R.; Kolonay, J.; McClarty, G.; Salzberg,
Nucleic Acids Res. 28, 1397-1406, 2000
A>Title: Genome sequences of Chlamydia trachomatis Mohn and Chlamydia pneumoniae AR39.
A/Reference number: A81500; MWID:20150255; PMID:10684935
A/Accession: G81719
A/Status: preliminary
A/Molecule type: DNA
A/Residues: 1-627 <RET>
A/Cross-references: UNIPROT:Q9PL19; UNIPARC:UPI0000057881; GB:AE002296; GB:AE002160; NID
A/Experimental source: strain Nigg (Mohn)

C/Genetics:
A/Gene: TC0289

Query Match 28.8%; Score 55; DB 2; Length 627;
Best Local Similarity 45.0%; Pred. No. 13;
Matches 9; Conservative 3; Mismatches 8; Indels 0; Gaps 0;

QY 12 NFRYPVGKFPQYD 31
|||||
DB 255 SFPHYSHQGFYKADMHKDT 274

RESULT 13
C84900
hypothetical protein At2g46230 [imported] - Arabidopsis thaliana
C/Species: Arabidopsis thaliana (mouse-ear cress)
C/Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004
C/Accession: C84900
R/Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.;
W.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanKen, S.E.; Umayam, L.; Tallon, L.;
eues, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Frazer, C.M.; Venter, J
Nature 402, 761-768, 1999
A>Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.
A/Reference number: A84420; MWID:20083487; PMID:10617197
A/Accession: C84900
A/Status: preliminary
A/Molecule type: DNA
A/Residues: 1-216 <STO>
A/Cross-references: UNIPROT:O82346; UNIPARC:UPI000017995D; GB:AE002093; NID:93702326; PI
A/Genetics:
A/Gene: At2g46230
A/Map position: 2

Query Match 28.3%; Score 54; DB 2; Length 216;
Best Local Similarity 50.0%; Pred. No. 5.4;
Matches 10; Conservative 2; Mismatches 8; Indels 0; Gaps 0;

QY 7 TVLPDNPFRYPVGKFPQYD 26
|||||
DB 38 TELPRNVPSVPAGLFPFSNS 57

RESULT 14
B72565
hypothetical protein APE1804 - Aeropyrum pernix (strain K1)
C/Species: Aeropyrum pernix
C/Date: 20-Aug-1999 #sequence_revision 20-Aug-1999 #text_change 09-Jul-2004
C/Accession: B72565
R/Kawarabayashi, Y.; Hino, Y.; Horikawa, H.; Yamazaki, S.; Hatahara, Y.; Jin-no, K.; Takah
awa, H.; Takamiya, M.; Masuda, S.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.; K
DNA Res. 6, 83-101, 1999
A>Title: Complete genome sequence of an aerobic hyper-thermophilic Crenarchaeon, Aeropyr
A/Reference number: A72450; MWID:99310339; PMID:10382966
A/Accession: B72565
A/Status: preliminary
A/Molecule type: DNA
A/Residues: 1-418 <RAM>
A/Cross-references: UNIPROT:Q9YAZ1; UNIPARC:UPI000005E0C3; DDBJ:AP000062; NID:95105244;
A/Experimental source: strain K1
C/Genetics:
A/Gene: APE1804
C/Superfamily: Aeropyrum pernix hypothetical protein APE1276

Query Match 27.5%; Score 52.5; DB 2; Length 418;
Best Local Similarity 40.7%; Pred. No. 18;
Matches 11; Conservative 3; Mismatches 10; Indels 3; Gaps 1;

QY 5 PPTVLPDNPFRYPVGKFPQYD 28
|||||
DB 14 PPTVLPDNPFRYPVGKFPQYD 40

RESULT 15

AB2789

competence-damage associated protein [imported] - Agrobacterium tumefaciens (strain C58)
C:Species: Agrobacterium tumefaciens

C:Species: *Agrobacterium tumefaciens*

C:\Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 05-Oct-2004
C:\Accession: AB2789

C;Accession: AB2789

Karp, P.; Romero, P.; Zhang, S. *Water Res.* 2001, 35, 2217-2222.

Science	294	3317-3323	2001
			Zhang, S.
			Romero, P.;
			Karp, P.;

Science 294, 2317-2323, 2001

A: Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm, J.; Sester, E.W.

ster, E.W.

A1>Title: The genome of the Natural Genetic Engineer *Agrobacterium tumefaciens* C58
A1.Reference number: AB2577; MUID:21608550; PMID:11743193

A;Reference number: AB2577; MUID:21608550; PMID:11743193

A;Accession: AB2789

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-263 <KUR>

A/Cross-references: UNIPROT:Q8UEH8, UNIPARC:UPI000016463D, GB:AE008688, PION:PAL42728.1.1
A/Experimental source: strain C58 (Dupont)

A; Experimental source: strain C58 (Dupont)

C;Genetics:

A;Gene: cina

A;Map position: circular chromosome
C;Superfamily: molybdopterin binding protein related to CINA

C:Superfamily: molybdopterin binding protein related to CINA

Query Match	27.2%	Score 52;	DB 2;	Length 263;
Best Local Similarity	31.2%	Pred. No. 13;		
Matches 10;	Conservative 7;	Mismatches 15;	Indels 0;	Gaps 0;

Best Local Similarity 31.2%; Pred. No. 13;

Matches 10; Conservative 7; Mismatches 15; Indels 0; Gaps 0;

QY 1 DVSTPPTVL PDNFP RY PVGKFFQYDTWKQSTQ 32

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Db      192 DIGPLTAIQKAPETSGSYPKYDQRFSTE 223
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Search completed: May 21, 2006, 12:46:51
Job time : 20.6667 secs

Job time : 20.6667 secs

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Protein Sequence Searches - February 2005

All of the sequence databases on ABSS have recently been updated.

- Please note that the curators of the UniProt database have purged some temporary accession numbers from the most recent version of UniProt. These sequences have been assigned new permanent accession numbers. The new UniProt record may not contain the previous temporary accession number.
- If you encounter an accession number from an older search run against UniProt (results file extension **.rnp**) that can no longer be found in the database, the permanent record with the new accession number can be found by searching the old accession number in the UniProt Protein Archive database (UniPARC) at:

<http://www.pir.uniprot.org/database/archive.shtml>

If you have any questions regarding this information or your results, please contact any STIC searcher.

When submitting sequence search results for scanning into IFW, please include a copy of this attachment to assist any future Examiners or members of the public who may encounter UniProt temporary accession numbers.

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GenCore version 5.1.8
Copyright (c) 1993 - 2006 Bioacceleration Ltd.

OM protein - protein search, using sw model

Run on: May 21, 2006, 12:31:30 ; Search time 162.333 Seconds

(without alignments)
193.740 Million cell updates/sec

Title: US-10-632-366-1

Perfect score: 191
Sequence: 1 DVSTPPTVLPDNPFRYPVGKFPQYDTWKSTQRL 34

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2849598 seqs, 925015592 residues

Total number of hits satisfying chosen parameters: 2849598

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : UniProt 7.2:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	191	100.0	180	1	IGF2_HUMAN
2	186	97.4	129	1	IGF2_MOUSE
3	182	95.3	181	1	IGF2_PIG
4	168	88.0	123	2	Q8WU15_PIG
5	160	83.8	128	1	IGF2_CAVPO
6	153	80.1	115	2	Q5O0X5_EQUUS
7	153	80.1	181	1	IGF2_HORSE
8	150	78.5	180	1	IGF2_MOUSE
9	150	78.5	180	2	Q2IDG5_MUSSEP
10	150	78.5	191	2	Q2IDG7_MUSSEP
11	142	74.3	154	2	Q63265_RAT
12	142	74.3	179	1	IGF2_SHEEP
13	142	74.3	180	1	IGF2_RAT
14	138	72.3	104	2	Q862E7_BOVIN
15	138	72.3	113	2	Q9N1S5_CAPCA
16	138	72.3	141	2	Q862G1_BOVIN
17	138	72.3	149	2	Q9MYX4_BOVIN
18	138	72.3	155	1	IGF2_BOVIN
19	119	62.3	184	2	Q673F2_DIMA
20	115	60.2	62	2	Q9X888_HORSE
21	114	59.7	106	2	Q9MYZ6_TRIYU
22	110	57.6	78	2	Q53WT7_RAT
23	104	54.5	57	2	Q28237_CEREL
24	64	33.5	3147	2	Q4RXM3_TETNG
25	60.5	31.7	2859	2	Q4P8S3_USTMA
26	60	31.4	285	2	Q5ATM0_EMENI
27	58	30.4	380	1	T701_FREDD
28	57.5	30.4	779	2	Q4STG7_TETNG
29	57.5	30.1	555	2	Q7OET1_ANOGA
30	57	29.8	264	2	Q7VA26_PROMM
31	57	29.8	536	2	Q6CVJ2_KLULA

32	56.5	29.6	153	2	Q6C2V1_YARLI	Q6C2V1_yarrowia 11
33	56.5	29.6	305	2	Q82LP8_STRAM	Q82LP8_streptomyce
34	56.5	29.6	546	2	Q4MPZ8_BACE	Q4MPZ8_bacillus ce
35	56.5	29.6	1168	2	Q41T81_GIBEX	Q41T81_gibberella
36	56	29.3	215	2	Q48NR7_PSEI4	Q48NR7_pseudomonas
37	56	29.3	215	2	Q88A26_PSEEM	Q88A26_pseudomonas
38	56	29.3	229	2	Q4ZMT9_PSEU2	Q4ZMT9_pseudomonas
39	56	29.3	298	2	Q5W110_BACSK	Q5W110_bacillus c1
40	56	29.3	351	2	Q4PIH9_USTMA	Q4PIH9_ustilago ma
41	55.5	29.1	187	2	Q57687_9PASE	Q57687_taeoipygia
42	55.5	29.1	875	2	Q2S2D8_9SPH1	Q2S2D8_saliniabacte
43	55	28.8	395	2	Q2RIJ3_MOOTH	Q2RIJ3_moorella th
44	55	28.8	627	2	Q9PLI3_CHIMU	Q9PLI3_chlamydia m
45	55	28.8	651	2	Q56A50_BRARE	Q56A50_brachydanio

ALIGNMENTS

RESULT 1
ID IGF2_HUMAN STANDARD, PRT, 180 AA.
AC P01344; P78449; Q14299; Q9UC68; Q9UC69;
DT 21-JUL-1986, integrated into UniProtKB/Swiss-Prot.
DT 21-JUL-1986, sequence version 1.
DT 07-FEB-2006, entry version 81.
DE Insulin-like growth factor II precursor (IGF-II) (Somatomedin A)
DE [Contains: Insulin-like growth factor II Ala-25 Del].
GN Name=IGF2; ORFNames=P1446;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RX MEDLINE=84295593; PubMed=6382022;
RA Dull T.J., Gray A., Hayflick J.S., Ullrich A.;
RT "Insulin-like growth factor II precursor gene organization in relation
to insulin gene family.";
RL Nature 310:777-781(1984).
RN [2]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RX MEDLINE=84295592; PubMed=6382021.
RA Bell G.L., Merryweather J.P., Sanchez-Pescador R., Stempien M.M.,
RA Priestley L., Scott J., Rall L.B.;
RT "Sequence of a cDNA clone encoding human preproinsulin-like growth
factor II.";
RL Nature 310:775-777(1984).
RN [3]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RX MEDLINE=88158110; PubMed=2450353;
RA Shen S.-J., Daimon M., Wang C.-Y., Jansen M., Iian J.;
RT "Isolation of an insulin-like growth factor II cDNA with a unique 5'
untranslated region from human placenta.";
RL Proc. Natl. Acad. Sci. U.S.A. 85:1947-1951(1988).
RN [4]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RX MEDLINE=86108862; PubMed=3002851; DOI=10.1016/0014-5793(86)80156-9;
RA de Pagter-Holtuijken P., van Schaik F.M.A., Verdijn G.M.,
RA van Ommen G.J.B., Bouma B.N., Jansen M., Susembach J.S.;
RT "Organization of the human genes for insulin-like growth factors I and
II.";
RL FEBS Lett. 195:179-184(1986).
RN [5]
RP NUCLEOTIDE SEQUENCE (MRNA) (ISOFORM 1).
RX MEDLINE=87317645; PubMed=3476948;
RA Iriminger J.C., Rosen K.M., Hummel R.E., Villa-Komaroff L.;
RT "Tissue-specific expression of insulin-like growth factor II mRNAs
with distinct 5' untranslated regions.";
RL Proc. Natl. Acad. Sci. U.S.A. 84:6330-6334(1987).
RN [6]
RP NUCLEOTIDE SEQUENCE (MRNA) (ISOFORM 1).

RA MEDLINE=88065102; PubMed=3683205;
RA Rall L.B., Scott J., Bell G.I.;
RT "Human insulin-like growth factor I and II messenger RNA: isolation of
RT complementary DNA and analysis of expression.";
RL Methods Enzymol. 146:239-246(1987).
RN [17]
RP NUCLEOTIDE SEQUENCE [MRNA] (ISOFORMS 1 AND 2).
RX MEDLINE=85102019; PubMed=3881277; DOI=10.1016/0014-5793(85)80527-5;
RA Jansen M., van Schaik F.M.A., van Tol H., van den Brande J.L.,
RA Susenbach J.S.;
RT "Nucleotide sequences of cDNAs encoding precursors of human insulin-
RT like growth factor II (IGF-II) and an IGF-II variant.";
RL FEBS Lett. 179:243-246(1985).
RN [18]
RP NUCLEOTIDE SEQUENCE [MRNA] (ISOFORM 1).
RX MEDLINE=95247546; PubMed=7730145;
RA Hagiwara K., Kobayashi T., Tobita M., Kikyo N., Yazaki Y., Okabe T.;
RT "Isolation of a cDNA for a growth factor of vascular endothelial cells
RT from human lung cancer cells: its identity with insulin-like growth
RT factor II.";
RL Jpn. J. Cancer Res. 86:202-207(1995).
RN [19]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
RX PubMed=1549887; DOI=10.1073/pnas.0404089101;
RA Man D., Gong Y., Qin W., Zhang P., Li J., Wei L., Zhou X., Li H.,
RA Qiu X., Zhong F., He L., Yu J., Yao G., Jiang H., Qian L., Yu Y.,
RA Shu H., Chen X., Xu H., Guo M., Pan Z., Chen Y., Ge C., Yang S.,
RA Gu J.;
RT "Large-scale cDNA transfection screening for genes related to cancer
RT development and progression.";
RL Proc. Natl. Acad. Sci. U.S.A. 101:15724-15729(2004).
RN [110]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
RX Kaimine N., Chen X., Rolis A., Halleck A., Hines L., Eisenstein S.,
RA Kandinya M., Raphael J., Moreira D., Kelley T., Labaer J., Lin Y.,
RA Pheilan M., Farmer A.;
RT "Cloning of human full-length cDNAs in BD Creator(TM) system donor
RT vector.";
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
RN [111]
RP NUCLEOTIDE SEQUENCE [GENOMIC DNA].
RX Rieder M.J., Amel T.Z., Carrington D.P., Ozuna M., Kuldanek S.A.,
RA Rajkumar N., Toth E.J., Yi Q., Nickerson D.A.;
RT SeacatSNPc. NHLBI HL66682 program for genomic applications, UM-
RT FHCRG, Seattle, WA (URL: <http://pga.gs.washington.edu>).";
RL Submitted (MAY-2002) to the EMBL/GenBank/DBJ databases.
RN [112]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
RX TISSUE=Muscle;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Scapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Schetz T.E.,
RA Brownstein M.J., Ueidi T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Harte S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Murley K.C., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahney J., Heiton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smolius D.E.,
RA Scherch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [113]
RP NUCLEOTIDE SEQUENCE OF 103-180.
RX MEDLINE=89000779; PubMed=3167054; DOI=10.1016/0167-4781(89)90124-8;
RA de Pagter-Holthuisen P., van der Kammen R.A., Jansen M.,
RA van Schaik F.M.A., Susenbach J.S.;
RT "Differential expression of the human insulin-like growth factor II
RT gene. Characterization of the IGF-II mRNAs and an mRNA encoding a
RT putative IGF-II-associated protein.";
RL Biochim. Biophys. Acta 950:282-295(1998).
RN [114]
RP NUCLEOTIDE SEQUENCE OF 1-161 (ISOFORM 2).
RX MEDLINE=88005137; PubMed=3653397; DOI=10.1016/0014-5793(87)80216-8;
RA le Bouc Y., Noguez P., Sondermeijer P., Dreyer D., Girard F.,
RA Binoux M.;
RT "A new 5'-non-coding region for human placental insulin-like growth
RT factor II mRNA expression.";
RL FEBS Lett. 222:181-185(1987).
RN [115]
RP NUCLEOTIDE SEQUENCE OF 1-52.
RX TISSUE=Liver;
MEDLINE=88003966; PubMed=3652904;
RA Gray A., Tam A.W., Dull T.J., Hayflick J.S., Pintar J., Cavenne W.K.,
RA Koutos A., Ulrich A.;
RT "Tissue-specific and developmentally regulated transcription of the
RT insulin-like growth factor 2 gene.";
RL DNA 6:283-295(1987).
RN [116]
RP PROTEIN SEQUENCE OF 25-91.
RX MEDLINE=78191259; PubMed=658418; DOI=10.1016/0014-5793(78)80237-3;
RA Rinderknecht E., Hummel R.E.;
RT "Primary structure of human insulin-like growth factor II.";
RL FEBS Lett. 89:283-286(1978).
RN [117]
RP PARTIAL PROTEIN SEQUENCE AND DISULFIDE BONDS.
RX MEDLINE=89255428; PubMed=2722836;
RA Smith M.C., Cook J.A., Furman T.C., Occolowitz J.L.;
RT "Structure and activity dependence of recombinant human insulin-like
RT growth factor II on disulfide bond pairing.";
RL J. Biol. Chem. 264:9314-9321(1989).
RN [118]
RP PROTEIN SEQUENCE OF 25-68.
RX MEDLINE=95360205; PubMed=7633596; DOI=10.1016/0378-4347(94)00576-Q;
RA De Ceuninck F., Willeput J., Corvol M.;
RT "Purification and characterization of insulin-like growth factor II
RT (IGF II) and an IGF II variant from human placenta.";
RL J. Chromatogr. B 666:203-214(1995).
RN [119]
RP MASS SPECTROMETRY AND PROCESSING.
RX MEDLINE=22474139; PubMed=12586351; DOI=10.1016/S0014-5793(03)00042-5;
RA Nedelkov D., Nelson R.W., Kierman U.A., Niederkofer E.E., Tubbs K.A.;
RT "Detection of bound and free IGF-1 and IGF-2 in human plasma via
RT biomolecular interaction analysis mass spectrometry.";
RL FEBS Lett. 536:130-134(2003).
RN [120]
RP MASS SPECTROMETRY AND PROCESSING.
RX PubMed=15359740; DOI=10.1021/pr049388;
RA Nelson R.W., Nedelkov D., Tubbs K.A., Kierman U.A.;
RT "Quantitative mass spectrometric immunoassay of insulin like growth
RT factor I.";
RL J. Proteome Res. 3:851-855(2004).
RN [121]
RP CARBOHYDRATE-LINKAGE SITE THR-99.
RX MEDLINE=92235026; PubMed=1569071;
RA Hudgins W.R., Hampton B., Burgess W.H., Perdue J.F.;
RT "The identification of O-glycosylated precursors of insulin-like
RT growth factor II.";
RL J. Biol. Chem. 267:8153-8160(1992).
RN [122]
RP 3D-STRUCTURE MODELING.
RX MEDLINE=83210259; PubMed=6189745;
RA Blundell T.L., Bedarkar S., Hummel R.E.;
RT "Tertiary structures, receptor binding, and antigenicity of
RT insulinlike growth factors.";
RL Fed. Proc. 42:2592-2597(1983).
RN [123]
RP STRUCTURE BY NMR.

RX MEDLINE=95080243; PubMed=7527339;
RA Teraawa H., Kohda D., Hatanaka H., Nagata K., Higashihashi N.,
Query Match 100.0%; Score 191; DB 1; Length 180;
Best Local Similarity 100.0%; Pred. No. 4.6e-18;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLDPNPFPRYPVGKFFQYDTWKOSTORL 34
DB 93 DVSTPPTVLDPNPFPRYPVGKFFQYDTWKOSTORL 126

RESULT 2
IGF2_MUSVI STANDARD; PRT; 129 AA.
ID IGF2_MUSVI
AC P41694;
DT 01-NOV-1995, integrated into UniProtKB/Swiss-Prot.
DT 01-NOV-1995, sequence version 1.
DE 07-FEB-2006, entry version 34.
DE Insulin-like growth factor II precursor (IGF-II) (Fragment).
GN Name=IGF2;
OS Mus musculus (American mink).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Mustelidae;
OC Mustelinae; Mustela.
OX NCBI_TaxID=9667;
RN [1]
RP NUCLEOTIDE SEQUENCE [MRNA].
RC TISSUE=Liver;
RX MEDLINE=93307613; PubMed=7686523; DOI=10.1006/gen.1993.1079;
RA Ekstrom T.J., Baecklin B.M., Lindqvist Y., Engstrom W.;
RT "Insulin-like growth factor II in the mink (Mustela vison):
determination of a cDNA nucleotide sequence and developmental
regulation of its expression."
Gen. Comp. Endocrinol. 90:243-250(1993).
-1- FUNCTION: The insulin-like growth factors possess growth-promoting
activity. In vitro, they are potent mitogens for cultured cells.
IGF-II is influenced by placental lactogen and may play a role in
fetal development.
-1- SUBCELLULAR LOCATION: Secreted protein.
-1- SIMILARITY: Belongs to the insulin family.
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CC
EMBL: S63459; AAB27392.2; -; mRNA.
DR HSSP; P01344; 1IGL.
DR SMR; P41694; 25-92.
DR InterPro; IPR004825; Ins/IGF/relax.
DR Pfam; PF000649; Insulin; 1.
DR PRINTS; PR002777; INSULINB.
DR SMART; SM00078; IIGF; 1.
DR PROSITE; PS00262; INSULIN; 1.
KW Growth factor; Mitogen; Signal.
FT SIGNAL 1 24 By similarity.
FT CHAIN 25 92 Insulin-like growth factor II.
FT PROPEP 93 >129 /FTID=PRO_0000015722.
FT REGION 25 52 E peptide (By similarity).
FT REGION 53 65 /FTID=PRO_0000015723.
FT REGION 66 86 A.
FT REGION 87 92 D.
FT DISULFID 33 72 By similarity.
FT DISULFID 45 85 By similarity.
FT DISULFID 71 76 By similarity.
FT NON TER 129 129 By similarity.
SO SEQUENCE 129 AA; 14437 MW; FD06661DAFB473D0 CRC64;

Query Match 97.4%; Score 186; DB 1; Length 129;
Best Local Similarity 97.1%; Pred. No. 1.5e-17;
Matches 33; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 DVSTPPTVLDPNPFPRYPVGKFFQYDTWKOSTORL 34
DB 94 DVSTPPTVLDPNPFPRYPVGKFFQYDTWKOSTORL 127

RESULT 3
IGF2_PIG STANDARD; PRT; 181 AA.
ID IGF2_PIG
AC P23695;
DT 01-NOV-1991, integrated into UniProtKB/Swiss-Prot.
DT 01-FEB-1996, sequence version 2.
DE 07-FEB-2006, entry version 48.
DE Insulin-like growth factor II precursor (IGF-II).
GN Name=IGF2; (Pig).
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suidae;
OC Sus.
OX NCBI_TaxID=9823;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=91057136; PubMed=2243790;
RA Catchpole I.R., Engstrom W.;
RT "Nucleotide sequence of a porcine insulin-like growth factor II
cDNA."
Nucleic Acids Res. 18:6430-6430(1990).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Large white;
RX MEDLINE=2215958; PubMed=12140686; DOI=10.1007/s00335-001-3059-x;
RA Amarger V., Nguyen M., Van Laere A.-S., Braunschweig M., Nezer C.,
RT Georges M., Andersson L.;
RT "Comparative sequence analysis of the INS-IGF2-H19 gene cluster in
pigs."
Mamm. Genome 13:388-398(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=European wild boar, Hampshire, Japanese wild boar, Landrace,
RX Large white, Meishan, and Pietrain;
RX MEDLINE=22935770; PubMed=14574411; DOI=10.1038/nature02064;
RA Van Laere A.-S., Nguyen M., Braunschweig M., Nezer C., Collette C.,
RT Moreau L., Archibald A.L., Haley C., Buys N., Tally M., Andersson G.,
RT Georges M., Andersson L.;
RT "A regulatory mutation in IGF2 causes a major QTL effect on muscle
growth in the pig."
Nature 425:832-836(2003).
RN [4]
RP PROTEIN SEQUENCE OF 25-91.
RX MEDLINE=90039035; PubMed=2809477;
RA Francis G.L., Owens P.C., McNeil K.A., Wallace J.C., Ballard F.J.;
RT "Purification, amino acid sequences and assay cross-reactivities of
porcine insulin-like growth factor-I and -II."
J. Endocrinol. 122:681-687(1989).
-1- FUNCTION: The insulin-like growth factors possess growth-promoting
activity. In vitro, they are potent mitogens for cultured cells.
IGF-II is influenced by placental lactogen and may play a role in
fetal development.
-1- SUBCELLULAR LOCATION: Secreted protein.
-1- SIMILARITY: Belongs to the insulin family.
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CC
EMBL: X56094; CAA39574.1; -; mRNA.
DR EMBL; AY044828; AAL69551.1; -; Genomic DNA.
DR EMBL; AY242098; AAQ00953.1; -; Genomic DNA.
DR EMBL; AY242099; AAQ00955.1; -; Genomic DNA.
DR EMBL; AY242100; AAQ00958.1; -; Genomic DNA.
DR EMBL; AY242101; AAQ00961.1; -; Genomic DNA.
DR EMBL; AY242102; AAQ00964.1; -; Genomic DNA.
DR EMBL; AY242103; AAQ00967.1; -; Genomic DNA.
DR EMBL; AY242104; AAQ00970.1; -; Genomic DNA.
DR EMBL; AY242105; AAQ00973.1; -; Genomic DNA.

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DR EMBL: AY242106; AAC00976.1; -; Genomic DNA.
DR EMBL: AY242107; AAQ00979.1; -; Genomic DNA.
DR EMBL: AY242108; AAQ00982.1; -; Genomic DNA.
DR EMBL: AY242109; AAQ00984.1; -; Genomic DNA.
DR EMBL: AY242110; AAQ00986.1; -; Genomic DNA.
DR EMBL: AY242111; AAQ00988.1; -; Genomic DNA.
DR EMBL: AY242112; AAQ00991.1; -; Genomic DNA.
DR HSSP: P01344; 1IGL.
DR SMR: P23695; 25-91.
DR InterPro: IPR004825; Ins/IGF/relax.
DR InterPro: IPR003234; Insulin-like.
DR Pfam: PF00049; Insulin; 1.
DR PRINTS: PR00277; INSULIN.
DR ProDom: PD015667; Molusc_ins; 1.
DR SMART: SM00078; IIGF; 1.
DR PROSITE: PS00262; INSULIN; 1.
DR Direct protein sequencing; Growth factor; Mitogen; Signal.
KM SIGNAL 1 24 By similarity.
FT CHAIN 25 91 Insulin-like growth factor II.
FT PROPEP 92 181 /FTid=PRO_0000015727.
FT REGION 25 52 B.
FT REGION 53 64 C.
FT REGION 65 85 A.
FT REGION 86 91 D.
FT DISULFID 33 71 By similarity.
FT DISULFID 45 84 By similarity.
FT DISULFID 70 75 By similarity.
SQ SEQUENCE 181 AA; 20313 MW; 1816B935299B44E1 CRC64;

Query Match
Best local Similarity 95.3%; Score 182; DB 1; Length 181;
Matches 32; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPPRYPVGKFFQYDPTWKOS 34
DB 93 DVSTPPTVLPDNPPRYPVGKFFRYDTWKOS 126

RESULT 4
Q8MJT5_PIG PRELIMINARY; PRT; 123 AA.
AC Q8MJT5;
DT 01-OCT-2002, integrated into UniProtKB/TrEMBL.
DT 01-OCT-2002, sequence version 1.
DT 07-FEB-2006, entry version 15.
DE Insulin-like-growth factor 2 preproprotein (Fragment).
GN Name=IGF2;
OS Sus scrofa (Pig).
OC Eukaryota; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC Sus.
OC NCBI_TaxID=9823;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=2135958; PubMed=12140686; DOI=10.1007/s00335-001-3059-x;
RA Amarger V., Nguyen M., Van Laere A.-S., Brunschweiler M., Nezer C.,
RA Georges M., Andersen L.;
RT "Comparative sequence analysis of the INS-IGF2-H19 gene cluster in
RT pigs.";
RL Mamm. Genome 13:388-398(2002).
CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -1- SIMILARITY: Belongs to the insulin family.
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CC Distributed under the Creative Commons Attribution-NoDerivs license
CC EMBL: AF66299; AAM83400.1; -; mRNA.
CC HSSP: P01344; 1IGL.
CC SMR: P01344; 25-91.
CC GO: GO:0005576; C:extracellular region; IEA.
CC GO: GO:0005179; F:hormone activity; IEA.

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DR GO: GO:0018445; F:prothoracicotropic hormone activity; IEA.
DR GO: GO:007582; P:physiological process; IEA.
DR InterPro: IPR004824; Bombyxin.
DR InterPro: IPR004825; Ins/IGF/relax.
DR InterPro: IPR003234; Insulin-like.
DR Pfam: PF00049; Insulin; 1.
DR PRINTS: PR00276; INSULIN.
DR PRINTS: PR00277; INSULIN.
DR ProDom: PD001048; Bombyxin; 1.
DR ProDom: PD015667; Molusc_ins; 1.
DR SMART: SM00078; IIGF; 1.
DR PROSITE: PS00262; INSULIN; 1.
DR NON TER 123 123
SQ SEQUENCE 123 AA; 13876 MW; A0783AF5D9B89338 CRC64;

Query Match
Best local Similarity 88.0%; Score 168; DB 2; Length 123;
Matches 29; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPPRYPVGKFFQYDPTWKOS 30
DB 93 DVSTPPTVLPDNPPRYPVGKFFRYDTWKOS 122

RESULT 5
IGF2_CAVPO STANDARD; PRT; 128 AA.
ID IGF2_CAVPO
AC Q08279;
DT 01-FEB-1995, integrated into UniProtKB/Swiss-Prot.
DT 01-FEB-1995, sequence version 1.
DT 07-FEB-2006, entry version 41.
DE Insulin-like growth factor II precursor (IGF-II) (somatomedin A)
DE (Fragment).
GN Name=IGF2;
OS Cavia porcellus (Guinea pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
OC Hystricognathi; Caviidae; Cavia.
OC NCBI_TaxID=10141;
RN [1]
RP NUCLEOTIDE SEQUENCE [MRNA].
RX STRAIN=Hartley; TISSUE=Liver;
RX MEDLINE=93246007; PubMed=1301379; DOI=10.1016/0303-7207(92)90216-S;
RA Levinovitz A., Norstedt G., van den Berg S., Robinson I.C.A.F.,
RA Ekstrom T.O.;
RT "Isolation of an insulin-like growth factor II cDNA from guinea pig
RT liver: expression and developmental regulation.";
RL Mol. Cell. Endocrinol. 89:105-110(1992).
CC -1- FUNCTION: The insulin-like growth factors possess growth-promoting
CC activity. In vitro, they are potent mitogens for cultured cells.
CC IGF-II is influenced by placental lactogen and may play a role in
CC fetal development.
CC -1- SUBCELLULAR LOCATION: Secreted protein.
CC -1- DEVELOPMENTAL STAGE: Expressed predominantly in fetal tissues and
CC at lower levels in adult.
CC -1- SIMILARITY: Belongs to the insulin family.
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CC EMBL: S59899; AAB26479.1; -; mRNA.
CC PIR: I57671; I57671.
CC HSSP: P01344; 1IGL.
CC SMR: Q08279; 25-91.
CC InterPro: IPR004824; Bombyxin.
CC InterPro: IPR004825; Ins/IGF/relax.
CC Pfam: PF00049; Insulin; 1.
CC PRINTS: PR00277; INSULIN.
CC ProDom: PD001048; Bombyxin; 1.
CC SMART: SM00078; IIGF; 1.
CC PROSITE: PS00262; INSULIN; 1.
KM Growth factor; Mitogen; Signal.
FT SIGNAL 1 24 By similarity.

```

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FT CHAIN 25 91 Insulin-like growth factor II.
FT PROPER 92 >128 E peptide.
FT REGION 25 52 /FTid=PRO_0000015713.
FT REGION 53 64 B.
FT REGION 65 85 C.
FT REGION 86 91 A.
FT DISULFID 33 71 D.
FT DISULFID 45 84 By similarity.
FT NON_TER 128 128 By similarity.
SQ SEQUENCE 128 AA; 14420 MW; BC65A1D81ACE056 CRC64;

Query Match 83.8%; Score 160; DB 1; Length 128;
Best Local Similarity 85.3%; Pred. No. 6.1e-14;
Matches 29; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Qy 1 DVSTPPTVLDPNFPYVGKFFQYDTWKSTORL 34
Db 93 DVASASLAVLPDNFPYVGKFFQYDTWKSTORL 126
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RESULT 6

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OS00X5_EQUUS PRELIMINARY; PRT; 115 AA.
AC OS00X5;
DT 04-JAN-2005, integrated into UniProtKB/TrEMBL.
DT 04-JAN-2005, sequence version 1.
DT 07-FEB-2006, entry version 9.
DE Insulin-like growth factor 2 (Fragment).
OS Name=IGF2;
OS Equus asinus (Donkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.
OX NCBI_TaxID=9793;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=1992.
RA Wood C.E., Miller D.C., Tallmadge R.L., Bird H., Antczak D.F.;
RT "Igf2 is paternally expressed in conceptus tissues of interspecies
RT hybrids of the genus Equus."
RL Submitted (OCT-2004) to the EMBL/GenBank/DBJ databases.
CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -1- SIMILARITY: Belongs to the insulin family.
CC -----
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CC -----
DR EMBL: AY796071; AAV84953.1; -; mRNA.
DR SMR; OS00X5; 1-53.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007582; P:physiological process; IEA.
DR InterPro: IPR004825; Ins/IGF/relax.
DR InterPro: IPR003234; Insulin-like.
DR Pfam: PF00049; Insulin; 1.
DR PRINTS; PR00276; INSULINA.
DR ProDom; PD015667; Mollusc_ins; 1.
DR SMART; SM00078; IIGF; 1.
DR PROSITE; PS00262; INSULIN; 1.
FT NON_TER 1 1
FT SEQUENCE 115 AA; 13331 MW; 84F069DC01AC728B CRC64;

Query Match 80.1%; Score 153; DB 2; Length 115;
Best Local Similarity 82.4%; Pred. No. 5e-13;
Matches 28; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

Qy 1 DVSTPPTVLDPNFPYVGKFFQYDTWKSTORL 34
Db 55 DVSTPPTVLDPDSDRPYVVLFOYNAMKSTORL 88
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RESULT 7

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IGF2_HORSE
ID IGF2_HORSE STANDARD; PRT; 181 AA.
AC P51459; O18837;
DT 01-OCT-1996, integrated into UniProtKB/Swiss-Prot.
DT 15-JUL-1998, sequence version 2.
DT 07-FEB-2006, entry version 40.
DE Insulin-like growth factor II precursor (IGF-II) (Somatomedin A).
GN Name=IGF2;
OS Equus caballus (Horse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.
OX NCBI_TaxID=9796;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=97398492; Pubmed=9250862; DOI=10.1007/s003359900505;
RA Raudsepp T., Ote K., Rozell B., Chowdhary B.P.;
RT "Fish mapping of the IGF2 gene in horse and donkey-detection of
RT homoeology with HSN11."
RL Mamm. Genome 8:569-572 (1997).
RN [2]
RP NUCLEOTIDE SEQUENCE OF 25-117.
RC TISSUE=Liver;
RX MEDLINE=95154655; Pubmed=7851727; DOI=10.1006/gcen.1994.1182;
RA Ote K., Engstrom W.;
RT "Insulin-like growth factor II in the horse: determination of a cDNA
RT nucleotide sequence and expression in fetal and adult tissue."
RL Gen. Comp. Endocrinol. 96:270-275 (1994).
CC -1- FUNCTION: The insulin-like growth factors possess growth-promoting
CC activity. In vitro, they are potent mitogens for cultured cells.
CC IGF-II is influenced by placental lactogen and may play a role in
CC fetal development.
CC -1- SUBCELLULAR LOCATION: Secreted protein.
CC -1- SIMILARITY: Belongs to the insulin family.
CC -----
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CC -----
DR EMBL: AF020599; AAC48807.1; -; Genomic_DNA.
DR EMBL; U11241; AAA73915.1; -; mRNA.
DR PIR; I53642; I53642.
DR HSSP; P01344; 1IGL.
DR SMR; P51459; 25-91.
DR InterPro: IPR004824; Bombyxin.
DR InterPro: IPR004825; Ins/IGF/relax.
DR InterPro: IPR003234; Insulin-like.
DR Pfam; PF00049; Insulin; 1.
DR PRINTS; PR00277; INSULINB.
DR ProDom; PD001048; Bombyxin; 1.
DR ProDom; PD015667; Mollusc_ins; 1.
DR SMART; SM00078; IIGF; 1.
DR PROSITE; PS00262; INSULIN; 1.
KM Growth factor; Mitogen; Signal.
FT SIGNAL 1 24 By similarity.
FT CHAIN 25 91 Insulin-like growth factor II.
FT PROPER 92 181 /FTid=PRO_0000015715.
FT REGION 25 52 E peptide.
FT REGION 53 64 /FTid=PRO_0000015716.
FT REGION 65 85 B.
FT REGION 86 91 C.
FT REGION 91 91 A.
FT DISULFID 33 71 D.
FT DISULFID 45 84 By similarity.
FT DISULFID 70 75 By similarity.
FT CONFLICT 111 113 V -> G (in Ref. 2).
FT CONFLICT 113 113 L -> R (in Ref. 2).
SQ SEQUENCE 181 AA; 20361 MW; B88F96951C87AA12 CRC64;

Query Match 80.1%; Score 153; DB 1; Length 181;
Best Local Similarity 82.4%; Pred. No. 8.4e-13;
Matches 28; Conservative 2; Mismatches 4; Indels 0; Gaps 0;
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QY 1 DVSTPPTVLPDNFPKRYVGVKFFQYDTWKQSTORL 34
 DB 93 DVSTPPTVLPDNFPKRYVGVKFFQYDTWKQSTORL 126

RESULT 8
 IGF2_MOUSE STANDARD; PRT; 180 AA.
 AC P09535;
 DT 01-JUL-1989, integrated into UniProtKB/Swiss-Prot.
 DT 01-JUL-1989, sequence version 1.
 DT 07-FEB-2006, entry version 57.
 DE Insulin-like growth factor II precursor (Multiplication-stimulating
 DE polypeptide) (IGF-II).
 GN Name=IGF2; Synonyms=Igf-2;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Murinae; Mus.
 NCBI_TaxID=10090;
 OK [1]
 RN NUCLEOTIDE SEQUENCE.
 RP MEDLINE=87053171; PubMed=3780370;
 RX Stempien M.M., Fong N.M., Rall L.B., Bell G.I.;
 RT "Sequence of a placental cDNA encoding the mouse insulin-like growth
 RT factor II precursor."
 RL DNA 5:357-361(1986).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=91090843; PubMed=1702294;
 RT Rotwein P., Hall L.J.;
 RT "Evolution of insulin-like growth factor II: characterization of the
 RT mouse IGF-II gene and identification of two pseudo-exons."
 RL DNA Cell Biol. 9:725-735(1990).
 RN [3]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=97191545; PubMed=9035503; DOI=10.1093/dnares/3.5.331;
 RA Sasaki H., Shimozaki K., Zubair M., Aoki N., Hatano N., Moore T.,
 RA Feil R., Constancia M., Reik W., Rotwein P.;
 RT "Nucleotide sequence of a 28-kb mouse genomic region comprising the
 RT imprinted Igf2 gene."
 RL DNA Res. 3:331-335(1996).
 RN [4]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
 RC STRAIN=CS7BL/6J; TISSUE=Embryo;
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.T., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldi M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Udell T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loughran N.A., Peters G.J., Abramson R.D., Mullaly S.J.,
 RA Bosak S.A., McKeown P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hultk S.W.,
 RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakeley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butterfield Y.S.N., Krzywicki M.I., Skalska U., Smalins D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.W., Maiz M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences".
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [5]
 RP NUCLEOTIDE SEQUENCE OF 1-52.
 RX MEDLINE=89160812; PubMed=2537977;
 RA Tollefsen S.E., Sadow J.L., Rotwein P.;
 RT "Coordinate expression of insulin-like growth factor II and its
 RT receptor during muscle differentiation."

RL Proc. Natl. Acad. Sci. U.S.A. 86:1543-1547(1989).
 RN [6]
 RP NUCLEOTIDE SEQUENCE OF 1-52 AND 103-180.
 RC STRAIN=BALB/c; TISSUE=Spleen;
 RX MEDLINE=94089965; PubMed=8265819; DOI=10.1016/0167-0115(93)90337-8;
 RA Holthuisen P.E., Cleutjens C.B., Veenstra G.J., van der Lee F.M.,
 RA Koonen-Reemst A.M., Sussebach J.S.;
 RT "Differential expression of the human, mouse and rat IGF-II genes";
 RL Regul. Pept. 48:77-89(1993).
 CC -1- FUNCTION: The insulin-like growth factors possess growth-promoting
 CC activity. In vitro, they are potent mitogens for cultured cells.
 CC IGF-II is influenced by placental lactogen and may play a role in
 CC fetal development.
 CC -1- SUBCELLULAR LOCATION: Secreted protein.
 CC -1- DEVELOPMENTAL STAGE: Low levels of expression during myoblast
 CC proliferation. Levels rise rapidly during myoblast differentiation
 CC and then decrease.
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC -----
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 CC -----
 CC EMBL: M14951; AAA37683.1; -; mRNA.
 CC EMBL: M36332; AAA37926.1; -; Genomic_DNA.
 CC EMBL: M36331; AAA37926.1; JOINED; Genomic_DNA.
 CC EMBL: U71085; AAC53516.1; -; Genomic_DNA.
 CC EMBL: BC053489; AAH53489.1; -; mRNA.
 CC EMBL: M24633; AAA37923.1; -; Genomic_DNA.
 CC EMBL: X71921; CAA50737.1; -; Genomic_DNA.
 CC EMBL: X71922; CAA50738.1; -; Genomic_DNA.
 CC PIR: A24913; A24913.
 CC HSSP: P01344; 1IGF.
 CC SMK: P09535; 25-91.
 CC EMBL: ENSMUSG00000048583; Mus musculus.
 CC MGI: MGI:96434; Igf2.
 CC GO: GO:0005615; C:extracellular space; TAS.
 CC GO: GO:0005159; F:insulin-like growth factor receptor binding; IPI.
 CC GO: GO:0005515; F:protein binding; IPI.
 CC GO: GO:0009887; P:organogenesis; IMP.
 CC InterPro: IPR004824; Bombyxin.
 CC InterPro: IPR004825; Ins/IGF-relax.
 CC Pfam: PF00049; Insulin; 1.
 CC PRINTS: PR00277; INSULIN.
 CC ProDom: PD01048; Bombyxin; 1.
 CC SMART: SM00078; IIGF; 1.
 CC PROSITE: PS00262; INSULIN; 1.
 CC Growth factor; Mitogen; Signal.
 CC FT CHAIN 1 24
 FT FT 25 91 Insulin-like growth factor II.
 FT FT /FTid=PRO_0000015720.
 FT FT E peptide
 FT FT /FTid=PRO_0000015721.
 FT PROPEP 92 180
 FT REGION 25 52 B.
 FT REGION 53 64 C.
 FT REGION 65 85 A.
 FT REGION 86 91 D.
 FT REGION 33 71 By similarity.
 FT DISULFID 45 84 By similarity.
 FT DISULFID 70 75 By similarity.
 SQ SEQUENCE 180 AA; 20030 MW; 01730F8856EED7B CRC64;
 QY 1 DVSTPPTVLPDNFPKRYVGVKFFQYDTWKQSTORL 34
 DB 93 DVSTQAVLDPDPRRYVGVKFFQYDTWKQSTORL 126

RESULT 9
 Q2IDG5_MU5SP PRELIMINARY; PRT; 180 AA.
 ID Q2IDG5_MU5SP

Query Match 78.5%; Score 150; DB 1; Length 180;
 Best local similarity 79.4%; Pred. No. 2, 2e-12;
 Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

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AC Q2IDG5;
DT 07-MAR-2006, integrated into UniProtKB/TrEMBL.
DT 07-MAR-2006, sequence version 1.
DE Insulin-like growth factor 2.
GN Name=IGF2; ORFNames=XX-CH35_17P24.2-002;
OS Mus spretus (Western wild mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridea; Muridae; Murinae; Mus.
OX NCBI_TaxID=10096;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Matthews L.;
RL Submitted (FEB-2006) to the EMBL/GenBank/DBJ databases.
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CC -----
DR EMBL: C7027994; CAJ76273.1; -; Genomic DNA.
SQ SEQUENCE 180 AA; 19889 MW; SCA4059326EB6DB0 CRC64;

Query Match
Best Local Similarity 78.5%; Score 150; DB 2; Length 180;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPPRYPVGKFFQYDTWKOSTORL 34
DB 93 DVSTQAVLPDDPPRYPVGKFFQYDTWKOSTORL 126

RESULT 10
Q2IDG7_MUUSP PRELIMINARY; PRT; 191 AA.
ID Q2IDG7;
AC Q2IDG7;
DT 07-MAR-2006, integrated into UniProtKB/TrEMBL.
DT 07-MAR-2006, sequence version 1.
DE Insulin-like growth factor 2.
GN Name=IGF2; ORFNames=XX-CH35_17P24.2-001;
OS Mus spretus (Western wild mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Murinae; Mus.
OX NCBI_TaxID=10096;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Matthews L.;
RL Submitted (FEB-2006) to the EMBL/GenBank/DBJ databases.
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CC -----
DR EMBL: C7027994; CAJ76271.1; -; Genomic DNA.
SQ SEQUENCE 191 AA; 20920 MW; B121712E496A78EA CRC64;

Query Match
Best Local Similarity 78.5%; Score 150; DB 2; Length 191;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPPRYPVGKFFQYDTWKOSTORL 34
DB 104 DVSTQAVLPDDPPRYPVGKFFQYDTWKOSTORL 137

RESULT 11
Q63265_RAT PRELIMINARY; PRT; 154 AA.
ID Q63265;
AC Q63265;
DT 01-NOV-1996, integrated into UniProtKB/TrEMBL.
DT 01-NOV-1996, sequence version 1.
DT 07-FEB-2006, entry version 29.
DE Rat insulin-like growth factor II (Fragment).

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OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Rochler M.M., Bruni C.B., Whitfield H.J., Yang Y.W.-H., Frunzio R.,
RA Graham D.E., Coligan J.E., Terrell J.E., Acquaviva A.M., Nisley S.P.,
RT "Characterization of the biosynthetic precursor for rat insulin-like
RT growth factor II by biosynthetic labeling, radiosequencing, and
RT nucleotide sequence analysis of a cDNA clone."
RL Cancer Cells 3:131-138(1985).
CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -1- SIMILARITY: Belongs to the insulin family.
CC -----
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CC -----
DR EMBL: M38688; AAA41433.1; -; mRNA.
DR HSSP; P01344; IIGL.
DR SMR; P01344; 1-65.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007582; P:physiological process; IEA.
DR InterPro; IPR004825; Ins/IGF/relax.
DR InterPro; IPR003234; Insulin-like.
DR Pfam; PF00049; Insulin; 1.
DR PRINTS; PR00277; INSULINB.
DR ProDom; PD015667; MolIusc_ins; 1.
DR SMART; SM00078; IIGF; 1.
DR PROSITE; PS00262; INSULIN; 1.
FT NON_TER
SQ SEQUENCE 154 AA; 17376 MW; 2AD45125EF8B615E CRC64;

Query Match
Best Local Similarity 74.3%; Score 142; DB 2; Length 154;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPPRYPVGKFFQYDTWKOSTORL 34
DB 67 DVSTQAVLPDDPPRYPVGKFFQYDTWKOSTORL 100

RESULT 12
IGF2_SHEEP STANDARD; PRT; 179 AA.
ID IGF2_SHEEP
AC P10764;
DT 01-JUL-1989, integrated into UniProtKB/Swiss-Prot.
DT 01-OCT-1989, sequence version 2.
DE Insulin-like growth factor II precursor (IGF-II).
GN Name=IGF2;
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Tissue=Liver;
RL MEDLINE=89345107; PubMed=2762134;
RX O'Mahoney J.V., Adams T.E.,
RT "Nucleotide sequence of an ovine insulin-like growth factor-II cDNA."
RL Nucleic Acids Res. 17:5392-5392(1989).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RA Tissue=Liver;
RX MEDLINE=90356421; PubMed=2388846;
RA Brown W.M., Dziegielewska K.M., Foreman R.C., Saunders N.R.,
RT "The nucleotide and deduced amino acid sequences of insulin-like
RT growth factor II cDNAs from adult bovine and fetal sheep liver."
RL Nucleic Acids Res. 18:4614-4614(1990).

```

RN [3]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=Cocpworth; TISSUE=Liver;
 RX MEDLINE=93250051; PubMed=8485157; DOI=10.1016/0167-4781(93)90246-A;
 RA Demmer J., Hill D.F., Petersen G.B.;
 RT "Characterization of two sheep insulin-like growth factor II cDNAs
 with different 5'-untranslated regions";
 RL Biochim. Biophys. Acta 1173:79-80(1993).
 RN [4]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Liver;
 RA Ohlsen S.M., Wong E.A.;
 RT Submitted (SEP-1990) to the EMBL/GenBank/DBJ databases.
 RN [5]
 RP PROTEIN SEQUENCE OF 25-91.
 RX MEDLINE=89136887; PubMed=2537174;
 RA Francis G.L., McNeil K.A., Wallace J.C., Ballard F.J., Owens P.C.;
 RT "Sheep insulin-like growth factors I and II: sequences, activities and
 assays";
 RL Endocrinology 124:1173-1183(1989).
 RN [6]
 RP PROTEIN SEQUENCE OF 25-58.
 RX MEDLINE=89323215; PubMed=2752053; DOI=10.1016/0167-4838(89)90131-3;
 RA Hey A.W., Browne C.A., Simpson R.J., Thorburn G.D.;
 RT "Simultaneous isolation of insulin-like growth factors I and II from
 adult sheep serum";
 RL Biochim. Biophys. Acta 997:27-35(1989).
 CC -1- FUNCTION: The insulin-like growth factors possess growth-promoting
 activity. In vitro, they are potent mitogens for cultured cells.
 CC IGF-II is influenced by placental lactogen and may play a role in
 fetal development.
 CC -1- SUBCELLULAR LOCATION: Secreted protein.
 CC -1- SIMILARITY: Belongs to the insulin family.
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 CC -----
 DR EMBL, U00668; AAB60626.1; -, Genomic DNA.
 DR EMBL, U00666; AAB60626.1; JOINED; Genomic DNA.
 DR EMBL, U00667; AAB60626.1; JOINED; Genomic DNA.
 DR EMBL, X15248; CA33324.1; -, mRNA.
 DR EMBL, X53554; CA33762.1; -, mRNA.
 DR EMBL, M89788; AAA31548.1; -, mRNA.
 DR EMBL, M89789; AAA31548.1; -, mRNA.
 DR EMBL, X55638; CA39163.1; -, mRNA.
 DR PIR, S04858; S04858.
 DR HSSP, P01344; 1IGL.
 DR SMR, P10764; 25-91.
 DR InterPro: IPR004825; Ins/IGF/relax.
 DR Pfam: PF00069; Insulin; 1.
 DR PRINTS, PR00277; INSULIN.
 DR SMART, SM00078; IIGF, 1.
 DR PROSITE, PS00262; INSULIN; 1.
 KM Direct protein sequencing; Growth factor; Mitogen; Signal.
 FT SIGNAL 1 24 Insulin-like growth factor II.
 FT CHAIN 25 91 /FTId=PRO_0000015731.
 FT PROPEP 92 179 E peptide.
 FT REGION 25 52 B.
 FT REGION 53 64 /FTId=PRO_0000015732.
 FT REGION 65 85 A.
 FT REGION 86 91 D.
 FT DISULFID 33 71 By similarity.
 FT DISULFID 45 84 By similarity.
 FT DISULFID 70 75 By similarity.
 FT CONFLICT 46 47 GD -> DG (in Ref. 5).
 SQ SEQUENCE 179 AA; 19616 MW; 7B369A857F2BA478 CRC64;
 Query Match 74.3%; Score 142; DB 1; Length 179;
 Best Local Similarity 79.4%; Pred. No. 2,8e-11;
 Matches 27; Conservative 1; Mismatches 6; Indels 0; Gaps 0;

QY 1 DVSTPEYVLPDNFPYGVKFFQYDPTWKQSTORL 34
 Db 93 DVASATTVLPDDFTAYPVKFFQSDTWKQSTORL 126
 RESULT 13
 IGF2 RAT
 ID IGF2 RAT STANDARD; PRT; 180 AA.
 AC P01346;
 DT 21-JUL-1986, integrated into UniProtKB/Swiss-Prot.
 DT 20-MAR-1987, sequence version 1.
 DT 07-FEB-2006, entry version 59.
 DE Insulin-like growth factor II precursor (IGF-II) (Multiplication-
 stimulating polypeptide) (Multiplication-stimulating activity) (MSA).
 GN Name=Igf2; Synonyms=Igf-2;
 OS Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Muridae; Murinae; Rattus.
 OX NCBI_TaxID=10116;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=BRL-3A;
 RX MEDLINE=84295593; PubMed=6382022;
 RA Dull T.J., Gray A., Hayflick J.S., Ullrich A.;
 RT "Insulin-like growth factor II precursor gene organization in relation
 to insulin gene family";
 RL Nature 310:777-781(1984).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=Buffalo;
 RX MEDLINE=85215534; PubMed=3889836;
 RA Soares M.B., Ishii D.N., Eferatiadis A.;
 RT "Developmental and tissue-specific expression of a family of
 transcripts related to rat insulin-like growth factor II mRNA";
 RL Nucleic Acids Res. 13:1119-1134(1985);
 RN [3]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=87226166; PubMed=2438416;
 RA Soares M.B., Turken A., Ishii D.N., Mills L., Episkopou V., Cotter S.,
 RA Zeitlin S., Eferatiadis A.;
 RT "rat insulin-like growth factor II gene. A single gene with two
 promoters expressing a multitranscript family";
 RL J. Mol. Biol. 192:737-752(1986).
 RN [4]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=87057436; PubMed=3023383;
 RA Frunzio R., Chiariotti L., Brown A.L., Graham D.E., Rechler M.M.,
 RA Bruni C.B.;
 RT "Structure and expression of the rat insulin-like growth factor II
 (rIGF-II) gene. rIGF-II RNAs are transcribed from two promoters";
 RL J. Biol. Chem. 261:17138-17149(1986).
 RN [5]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=89000793; PubMed=3167060; DOI=10.1016/0167-4781(89)90138-8;
 RA Ueno T., Takahashi K., Matsuguchi T., Endo H., Yamamoto M.;
 RT "Transcriptional deviation of the rat insulin-like growth factor II
 gene initiated at three alternative leader-exons between neonatal
 tissues and ascites hepatomas";
 RL Biochim. Biophys. Acta 950:411-419(1988).
 RN [6]
 RP NUCLEOTIDE SEQUENCE OF 62-180.
 RX MEDLINE=85061532; PubMed=6390212;
 RA Whitfield H.J., Bruni C.B., Frunzio R., Terrell J.E., Nisley S.P.,
 RA Rechler M.M.;
 RT "Isolation of a cDNA clone encoding rat insulin-like growth factor-II
 precursor";
 RL Nature 312:277-280(1984).
 RN [7]
 RP NUCLEOTIDE SEQUENCE OF 103-180.
 RX MEDLINE=89127259; PubMed=3221878;
 RA Chiariotti L., Brown A.L., Frunzio R., Clemmons D.R., Rechler M.M.,
 RA Bruni C.B.;

RT "Structure of the rat insulin-like growth factor II transcriptional
 RT unit: heterogeneous transcripts are generated from two promoters by
 RT use of multiple polyadenylation sites and differential ribonucleic
 RT acid splicing."
 RL Mol. Endocrinol. 2:115-126(1988).
 RN (8)
 RP PROTEIN SEQUENCE OF 25-91.
 RX MEDLINE=81215670; PubMed=7016879;
 RA Marguier H., Todaro G.J., Henderson L.E., Oroszlan S.;
 RT Purification and primary structure of a polypeptide with
 RT multiplication-stimulating activity from rat liver cell cultures.
 RT Homology with human insulin-like growth factor II.";
 RL J. Biol. Chem. 256:6859-6865(1981).
 CC -1- FUNCTION: The insulin-like growth factors possess growth-promoting
 CC activity. In vitro, they are potent mitogens for cultured cells.
 CC IGF-II is influenced by placental lactogen and may play a role in
 CC fetal development.
 CC -1- SUBCELLULAR LOCATION: Secreted protein.
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC -----
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 CC -----
 CC EMBL; X00911; CA25428.1; -; mRNA.
 CC EMBL; X00911; CA25427.1; ALT_INIT; mRNA.
 CC EMBL; M3871; AAB95624.1; ALT_INIT; Genomic DNA.
 CC EMBL; M3869; AAB95624.1; JOINED; Genomic DNA.
 CC EMBL; M3980; AAA41391.1; JOINED; Genomic DNA.
 CC EMBL; M29879; AAA41391.1; JOINED; Genomic DNA.
 CC EMBL; X02213; CA26135.1; -; mRNA.
 CC EMBL; X13101; CA31493.1; -; mRNA.
 CC EMBL; X14833; CA32942.1; -; mRNA.
 CC EMBL; M30273; AAA41432.1; -; mRNA.
 CC EMBL; M31221; AAA42046.1; -; Genomic DNA.
 CC PIR; A25350; IGR2.
 CC HSSP; P01344; IIGL.
 CC SMR; P01346; 25-91.
 DR Ensembl; ENSRNOC0000020369; Rattus norvegicus.
 DR RGD; 2870; IGF2.
 DR InterPro; IPR004824; Bombyxin.
 DR InterPro; IPR004825; Ins/IGF/relax.
 DR Pfam; PF00049; Insulin; 1.
 DR PRINTS; PR00277; INSULINB.
 DR ProDom; PD001048; Bombyxin; 1.
 DR SMART; SM00078; IIGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 DR Direct protein sequencing; Growth factor; Mitogen; Signal.
 KW SIGNA
 FT CHAIN 1 24 Insulin-like growth factor II.
 FT PROPEP 92 180 E peptide.
 FT FT /FTID=PRO_0000015729.
 FT FT /FTID=PRO_0000015730.
 FT REGION 25 52 B.
 FT REGION 53 64 C.
 FT REGION 65 85 A.
 FT REGION 86 91 D.
 FT DISULFID 33 71 By similarity.
 FT DISULFID 45 84 By similarity.
 FT DISULFID 70 75 By similarity.
 FT CONFLICT 1 8 Missing (in Ref. 2).
 FT CONFLICT 57 57 S -> G (in Ref. 3).
 SQ SEQUENCE 180 AA; 20086 MW; AF12B4EBCDDBC34 CRC64;

RESULT 14. "
 ID Q862E7 BOVIN PRELIMINARY; PRT; 104 AA.
 AC Q862E7;
 DT 01-JUN-2003, integrated into UniProtKB/TrEMBL.
 DT 01-JUN-2003, sequence version 1.
 DT 07-FEB-2006, entry version 16.
 DE Similar to insulin-like growth factor II (Fragment).
 OS Bos taurus (Bovine).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 OC Pecora; Bovidae; Bovinae; Bos.
 OC NCBI_TaxID=9913;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=22544902; PubMed=12658628; DOI=10.1002/mrd.10292;
 RA Ishiwata H., Katsuma S., Kizaki K., Patel O.V., Nakano H.,
 RA Takahashi T., Imai K., Hirasawa A., Shiojima S., Ikawa H., Suzuki Y.,
 RA Tsujimoto G., Izaike Y., Todoroki J., Hashizume K.;
 RT "Characterization of gene expression profiles in early bovine
 RT pregnancy using a custom cDNA microarray."
 RL Mol. Reprod. Dev. 65:9-18(2003).
 CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC -----
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 CC -----
 CC EMBL; AB099052; BAC56542.1; -; mRNA.
 CC HSSP; P01344; IIGL.
 DR GO; GO:0005576; Extracellular region; IEA.
 DR GO; GO:0005179; Hormone activity; IEA.
 DR GO; GO:0007582; Physiological process; IEA.
 DR InterPro; IPR004825; Ins/IGF/relax.
 DR Pfam; PF00049; Insulin; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 FT NON_TER 1 1
 FT NON_TER 104 104
 SQ SEQUENCE 104 AA; 11708 MW; BBE8781F13FE83C CRC64;

Query Match 72.3%; Score 138; DB 2; Length 104;
 Best Local Similarity 76.5%; Pred. No. 5, 3e-11;
 Matches 26; Conservative 1; Mismatches 7; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPFRYPVGFQYDPTWKSTORL 34
 DB 27 DVSTQAVLPDPFRYPVGFQYDPTWKSTORL 60

RESULT 15
 ID Q9N1S5 CAPCA PRELIMINARY; PRT; 113 AA.
 AC Q9N1S5;
 DT 01-OCT-2000, integrated into UniProtKB/TrEMBL.
 DT 01-OCT-2000, sequence version 1.
 DT 07-FEB-2006, entry version 22.
 DE Insulin-like growth factor II (Fragment).
 GN Name=IGF-II;
 OS Capreolus capreolus (Roe deer).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 OC Pecora; Cervidae; Odocoileinae; Capreolus.
 OC NCBI_TaxID=9858;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX TISSUE=Testis;
 RX MEDLINE=20532861; PubMed=11078967; DOI=10.1016/S0378-4320(00)00191-3;
 RA Wagener A., Biotner S., Goritz F., Fickel J.;
 RT "Detection of growth factors in the testis of roe deer (Capreolus
 RT capreolus)."
 RL Anim. Reprod. Sci. 64:65-75(2000).

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CC -!- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -!- SIMILARITY: Belongs to the insulin family.
CC -----
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CC -----
DR EMBL: AF152589; AAF73228.1; -; mRNA.
DR HSSP: P01344; 1IGL.
DR SMR; Q9N1S5; 1-51.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:007582; P:physiological process; IEA.
DR InterPro; IPR004825; Ins/IGF/relax.
DR Pfam; PF00049; Insulin; 1.
DR PRINTS; PR00276; INSULINA.
DR SMART; SM00078; IIGF; 1.
DR PROSITE; PS00262; INSULIN; 1.
FT NON_TER 1
FT NON_TER 113
SQ SEQUENCE 113 AA; 12987 MW; A8269DDF56DA593C CRC64;

Query Match 72.3%; Score 138; DB 2; Length 113;
Best Local Similarity 76.5%; Pred. No. 5,9e-11;
Matches 26; Conservative 1; Mismatches 7; Indels 0; Gaps 0;

Qy 1 DVSTPTVLDPNFPKRYPVGKFFQYDTWKOSTORL 34
Db 53 DVSASTTVLPDALTAYPVGKFFRFRYDTWKOSTORL 86
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Search completed: May 21, 2006, 12:45:47
Job time : 164.333 secs

GenCore version 5.1.8
Copyright (c) 1993 - 2006 Bioacceleration Ltd.

OW protein - protein search, using sw model

Run on: May 21, 2006, 12:46:05 ; Search time 31 Seconds
(without alignments)
96.001 Million cell updates/sec

Title: US-10-632-366-1

Sequence: 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34

Scoring table:

BLOSUM62

Searched: 650591 seqs, 87530628 residues

Total number of hits satisfying chosen parameters: 650591

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

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5: /EMC_Celerra_SIDS3/ProdData/2/1aa/H_COMB.pep:*
6: /EMC_Celerra_SIDS3/ProdData/2/1aa/RE_COMB.pep:*
7: /EMC_Celerra_SIDS3/ProdData/2/1aa/Backfile1.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
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2	191	100.0	35	2	US-09-657-276-381
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4	191	100.0	156	2	US-09-428-226A-7
5	191	100.0	156	2	US-09-972-809-7
6	191	100.0	156	2	US-09-972-809-7
7	191	100.0	180	1	US-07-953-230A-12
8	191	100.0	180	2	US-09-617-389B-19
9	191	100.0	180	7	5405942-4
10	90	47.1	16	2	US-09-623-548A-380
11	90	47.1	16	2	US-09-657-276-380
12	84	44.0	16	2	US-10-360-101-185
13	62.5	32.7	148	2	US-09-248-796A-17232
14	53	27.7	261	2	US-09-489-039A-11728
15	51	26.7	1571	2	US-08-956-991-11
16	51	26.7	1910	2	US-08-956-991-11
17	50.5	26.4	667	2	US-09-248-796A-122880
18	50	26.2	550	2	US-09-198-452A-225
19	50	26.2	556	2	US-09-438-185A-210
20	50	26.2	962	2	US-09-305-658-310
21	49.5	25.9	504	2	US-09-583-110-4461
22	49.5	25.9	522	2	US-09-107-433-3066
23	49	25.7	183	2	US-09-134-001C-4145
24	49	25.7	1004	2	US-09-489-039A-9715
25	48	25.1	97	2	US-09-489-039A-12954
26	48	25.1	286	2	US-09-662-254B-12

27	48	25.1	478	1	US-08-951-148-7	Sequence 7, Appl
28	48	25.1	478	1	US-09-165-234-7	Sequence 7, Appl
29	48	25.1	478	1	US-09-274-570-7	Sequence 7, Appl
30	48	25.1	1251	2	US-10-094-749-2641	Sequence 2641, Ap
31	48	25.1	2289	2	US-09-051-019-2	Sequence 2, Appl
32	48	25.1	3898	2	US-08-750-717-2	Sequence 2, Appl
33	48	25.1	4126	2	US-09-953-096-2	Sequence 4, Appl
34	48	25.1	5518	2	US-09-953-096-2	Sequence 2, Appl
35	47.5	24.9	1334	2	US-09-328-352-5736	Sequence 5736, Ap
36	47.5	24.9	289	2	US-10-094-749-2805	Sequence 2805, Ap
37	47.5	24.9	302	2	US-10-094-749-1923	Sequence 1901, Ap
38	47.5	24.9	472	2	US-09-667-365-1901	Sequence 6, Appl
39	47.5	24.9	473	1	US-08-073-383-6	Sequence 17, Appl
40	47.5	24.9	473	5	PCT-US94-06365-6	Sequence 6, Appl
41	47.5	24.9	512	3	US-10-114-270-140	Sequence 140, App
42	47.5	24.9	563	2	US-09-602-787A-288	Sequence 288, App
43	47.5	24.9	563	2	US-09-602-787A-290	Sequence 290, App
44	47.5	24.9	737	2	US-09-583-110-4156	Sequence 4156, Ap
45	47.5	24.9	737	2	US-09-583-110-4156	Sequence 4156, Ap

ALIGNMENTS

RESULT 1
US-09-623-548A-381
Sequence 381, Application US/09623548A
Patent No. 6849714
GENERAL INFORMATION:
APPLICANT: ConjuChem, Inc.
APPLICANT: Bridon, Dominique
APPLICANT: Ezrin, Alan
APPLICANT: Milner, Peter
APPLICANT: Holmes, Darren
APPLICANT: Thibaudau, Karen
TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
TITLE OF INVENTION: COMPONENTS
FILE REFERENCE: 2110
CURRENT APPLICATION NUMBER: US/09/623, 548A
CURRENT FILING DATE: 2000-09-05
PRIOR APPLICATION NUMBER: 60/134, 406
PRIOR FILING DATE: 1999-05-17
PRIOR APPLICATION NUMBER: 60/153, 406
PRIOR FILING DATE: 1999-09-10
PRIOR APPLICATION NUMBER: 60/159, 783
PRIOR FILING DATE: 1999-10-18
NUMBER OF SEQ ID NOS: 1617
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 381
LENGTH: 35
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: Peptide
US-09-623-548A-381
Query Match 100.0%; Score 191; DB 2; Length 35;
Best local Similarity 100.0%; Pred. No. 1,4e-20;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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DB 2 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 35
RESULT 2
US-09-657-276-381
Sequence 381, Application US/09657276
Patent No. 6887470
GENERAL INFORMATION:
APPLICANT: ConjuChem, Inc.

APPLICANT: Bridon, Dominique
APPLICANT: Ezrin, Alan
APPLICANT: Milner, Peter
APPLICANT: Holmes, Darren
APPLICANT: Thibodeau, Karen
TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
FILE REFERENCE: 2110
CURRENT APPLICATION NUMBER: US/09/657,276
PRIOR FILING DATE: 2000-09-07
PRIOR APPLICATION NUMBER: 60/134,406
PRIOR FILING DATE: 1999-05-17
PRIOR APPLICATION NUMBER: 60/153,406
PRIOR FILING DATE: 1999-09-10
PRIOR APPLICATION NUMBER: 60/159,783
PRIOR FILING DATE: 1999-10-18
NUMBER OF SEQ ID NOS: 1617
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 381
LENGTH: 35
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-09-657-276-381

Query Match 100.0%; Score 191; DB 2; Length 35;
Best Local Similarity 100.0%; Pred. No. 1.4e-20;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPPRYVGVKFFQYDTWKQSTQRL 34
DB 2 DVSTPPTVLPDNPPRYVGVKFFQYDTWKQSTQRL 35

RESULT 3
US-08-950-720A-10
Sequence 10, Application US/08950720A
Patent No. 6046028
GENERAL INFORMATION:
APPLICANT: Conklin, Darrell C.
APPLICANT: Lofton-Day, Catherine E.
APPLICANT: Lok, Si
APPLICANT: Jaspers, Stephen R.
TITLE OF INVENTION: INSULIN HOMOLOG
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: ZymoGenetics, Inc.
STREET: 1201 Eastlake Avenue East
CITY: Seattle
STATE: WA
COUNTRY: USA
ZIP: 98102
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/950,720A
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Sawislak, Deborah A.
REGISTRATION NUMBER: 37,438
REFERENCE/DOCKET NUMBER: 96-09
TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-442-6672

TELEFAX: 206-442-6678
TEXT:
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 155 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: No. 6046028e
US-08-950-720A-10

Query Match 100.0%; Score 191; DB 2; Length 155;
Best Local Similarity 100.0%; Pred. No. 7.1e-20;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNPPRYVGVKFFQYDTWKQSTQRL 34
DB 93 DVSTPPTVLPDNPPRYVGVKFFQYDTWKQSTQRL 126

RESULT 4
US-09-428-226A-7
Sequence 7, Application US/09428226A
Patent No. 6548482
GENERAL INFORMATION:
APPLICANT: Sundee, Khosla
APPLICANT: Conover, Cheryl A.
TITLE OF INVENTION: TREATMENT OF OSTEOPOROSIS
FILE REFERENCE: 07039/183001
CURRENT APPLICATION NUMBER: US/09/428,226A
PRIOR FILING DATE: 1999-10-27
PRIOR APPLICATION NUMBER: 09/073,032
PRIOR FILING DATE: 1998-05-05
PRIOR APPLICATION NUMBER: 60/045,607
PRIOR FILING DATE: 1997-05-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 7
LENGTH: 156
TYPE: PRT
ORGANISM: Homo sapiens
US-09-428-226A-7

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Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 69 DVSTPPTVLPDNPPRYVGVKFFQYDTWKQSTQRL 102

RESULT 5
US-09-972-809-7
Sequence 7, Application US/09972809
Patent No. 6693084
GENERAL INFORMATION:
APPLICANT: Sundee, Khosla
APPLICANT: Conover, Cheryl A.
TITLE OF INVENTION: TREATMENT OF OSTEOPOROSIS
FILE REFERENCE: 07039/183001
CURRENT APPLICATION NUMBER: US/09/972,809
PRIOR FILING DATE: 2001-10-05
PRIOR APPLICATION NUMBER: 09/428,226
PRIOR FILING DATE: 1999-10-27
PRIOR APPLICATION NUMBER: 60/045,607
PRIOR FILING DATE: 1997-05-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 7
LENGTH: 156
TYPE: PRT
ORGANISM: Homo sapiens

US-09-972-809-7

Query Match 100.0%; Score 191; DB 2; Length 156;

Best Local Similarity 100.0%; Pred. No. 7.2e-20;

Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34

Db 69 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 102

RESULT 6

US-09-972-809-7

Sequence 7, Application US/09972809

Patent No. 6916790

GENERAL INFORMATION:

APPLICANT: Sundeep, Khosla

APPLICANT: Conover, Cheryl A.

TITLE OF INVENTION: TREATMENT OF OSTEOPOROSIS

FILE REFERENCE: 07039/183001

CURRENT APPLICATION NUMBER: US/09/972,809

PRIOR APPLICATION NUMBER: 09/428,226

PRIOR FILING DATE: 1999-10-27

PRIOR APPLICATION NUMBER: 60/045,607

PRIOR FILING DATE: 1997-05-05

NUMBER OF SEQ ID NOS: 7

SOFTWARE: FastSeq for Windows Version 4.0

SEQ ID NO 7

LENGTH: 156

TYPE: PR

ORGANISM: Homo sapiens

US-09-972-809-7

Query Match 100.0%; Score 191; DB 2; Length 156;

Best Local Similarity 100.0%; Pred. No. 7.2e-20;

Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 69 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 102

RESULT 7

US-07-953-230A-12

Sequence 12, Application US/07953230A

Patent No. 5476779

GENERAL INFORMATION:

APPLICANT: CHEN, Thomas T

APPLICANT: SHAMLOTT, Michael J

TITLE OF INVENTION: INSULIN-LIKE GROWTH FACTORS ISOLATED

TITLE OF INVENTION: FROM RAINBOW TROUT

NUMBER OF SEQUENCES: 12

CORRESPONDENCE ADDRESS:

ADDRESSER: Burns, Doane, Swecker & Mathis

STREET: George Mason Bldg., Washington & Prince Sts.

CITY: Alexandria

STATE: Virginia

COUNTRY: United States

ZIP: 22313-1404

COMPUTER READABLE FORM:

MEDIUM TYPE: PC floppy disk

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/07/953,230A

FILING DATE: 30-SEP-1992

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: Crane-Feury, Sharon E

REGISTRATION NUMBER: 36,113

REFERENCE/DOCKET NUMBER: 028755-010

TELECOMMUNICATION INFORMATION:

TELEPHONE: (703) 836-6620

INFORMATION FOR SEQ ID NO: 12:

SEQUENCE CHARACTERISTICS:

LENGTH: 180 amino acids

TYPE: amino acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: protein

FEATURE:

NAME/KEY: Peptide

LOCATION: 57

OTHER INFORMATION: /note= "Gap of 1 after 57."

FEATURE:

NAME/KEY: Peptide

LOCATION: 59

OTHER INFORMATION: /note= "Gap of 1 after 59."

FEATURE:

NAME/KEY: Peptide

LOCATION: 63

OTHER INFORMATION: /note= "Gap of 2 after 63."

FEATURE:

NAME/KEY: Peptide

LOCATION: 85

OTHER INFORMATION: /note= "Gap of 2 after 85."

FEATURE:

NAME/KEY: Peptide

LOCATION: 96

OTHER INFORMATION: /note= "Gap of 3 after 96."

FEATURE:

NAME/KEY: Peptide

LOCATION: 97

OTHER INFORMATION: /note= "Gap of 8 after 97."

FEATURE:

NAME/KEY: Peptide

LOCATION: 119

OTHER INFORMATION: /note= "Gap of 1 after 119."

US-07-953-230A-12

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Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 93 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 126

RESULT 8

US-09-617-389B-19

Sequence 19, Application US/09617389B

Patent No. 6709659

GENERAL INFORMATION:

APPLICANT: Conklin, Darrell C.

APPLICANT: Lofton-Day, Catherine E.

TITLE OF INVENTION: Antibodies That Bind Testis-Specific

TITLE OF INVENTION: Insulin Homolog Polypeptides

FILE REFERENCE: 96-06C3

CURRENT APPLICATION NUMBER: US/09/617,389B

PRIOR APPLICATION NUMBER: 09/339,148

PRIOR FILING DATE: 1999-06-24

PRIOR APPLICATION NUMBER: 08/905,267

PRIOR FILING DATE: 1997-01-18

PRIOR APPLICATION NUMBER: 60/023,213

PRIOR FILING DATE: 1996-02-08

PRIOR APPLICATION NUMBER: 60/031,592

PRIOR FILING DATE: 1996-11-21

NUMBER OF SEQ ID NOS: 24

SOFTWARE: FastSeq for Windows Version 3.0

SEQ ID NO 19

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; LENGTH: 180
; TYPE: PRT
; ORGANISM: Human
US-09-617-389B-19

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Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 93 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 126

RESULT 9
5405942-4
; Patent No. 5405942
; APPLICANT: BELL, GRAEME I.;PALL, LESLIE B.;MERRYWEATHER,
; JAMES P.
; TITLE OF INVENTION: PREPRO INSULIN-LIKE GROWTH FACTORS
; I AND II
; NUMBER OF SEQUENCES: 16
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/65,673
; FILING DATE: 16-JUN-1987
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 630,557
; FILING DATE: 19-JUL-1984
; SEQ ID NO:4
; LENGTH: 180
5405942-4

Query Match
Best Local Similarity 100.0%; Score 191; DB 7; Length 180;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 93 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 126

RESULT 10
US-09-623-548A-380
; Sequence 380, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudreau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 380
; LENGTH: 16
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
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US-09-623-548A-380

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QY 1 DVSTPPTVLPDNFPFY 16
DB 1 DVSTPPTVLPDNFPFY 16

RESULT 11
US-09-657-276-380
; Sequence 380, Application US/09657276
; Patent No. 6887470
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudreau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/657,276
; CURRENT FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 380
; LENGTH: 16
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-657-276-380

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Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTPPTVLPDNFPFY 16
DB 1 DVSTPPTVLPDNFPFY 16

RESULT 12
US-10-360-101-185
; Sequence 185, Application US/10360101
; Patent No. 6861236
; GENERAL INFORMATION:
; APPLICANT: Mol1, Gert N.
; APPLICANT: Leenhouts, Cornelis J.
; TITLE OF INVENTION: Export and modification of (poly)peptide in the lantibiotic way
; FILE REFERENCE: 2183-5673
; CURRENT APPLICATION NUMBER: US/10/360,101
; CURRENT FILING DATE: 2003-02-07
; PRIOR APPLICATION NUMBER: EP 02077060.8
; PRIOR FILING DATE: 2002-05-24
; NUMBER OF SEQ ID NOS: 309
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 185
; LENGTH: 16
; TYPE: PRT
; ORGANISM: Artificial Sequence
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GenCore version 5.1.8
Copyright (c) 1993 - 2006 Bioceleration Ltd.

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Run on: May 21, 2006, 12:47:06 ; Search time 103 Seconds
(without alignments)
152.906 Million cell updates/sec

Title: US-10-632-366-1

Sequence: 1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34

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Post-processing: Minimum Match 0%

Listing first 45 summaries

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- 3: /EMC_Celerra_SIDS3/ProdData/2/pubppaa/US09_PUBCOMB.pep:*
- 4: /EMC_Celerra_SIDS3/ProdData/2/pubppaa/US10A_PUBCOMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	191	100.0	34	3	US-09-745-078A-2
2	191	100.0	34	4	US-10-374-624-2
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4	191	100.0	35	6	US-10-666-697-381
5	191	100.0	156	3	US-09-972-809-7
6	191	100.0	156	5	US-10-872-198-122
7	191	100.0	156	6	US-11-021-951-122
8	191	100.0	176	4	US-10-388-838-112
9	191	100.0	180	4	US-10-081-119-38
10	191	100.0	180	4	US-10-366-841-2
11	191	100.0	180	4	US-10-097-340-145
12	191	100.0	180	4	US-10-295-027-199
13	191	100.0	180	4	US-10-272-531A-2
14	191	100.0	180	4	US-10-173-999-99
15	191	100.0	180	4	US-10-372-483A-2
16	191	100.0	180	4	US-10-443-466A-21
17	191	100.0	180	4	US-10-188-832-84
18	191	100.0	180	4	US-10-100-725-19
19	191	100.0	180	4	US-10-706-791-5
20	191	100.0	180	4	US-10-770-668-46
21	191	100.0	180	5	US-10-741-600-1133
22	191	100.0	180	5	US-10-551-389-38
23	191	100.0	180	5	US-10-951-406-38
24	191	100.0	180	5	US-10-951-477-38
25	191	100.0	180	5	US-10-977-087-38
26	191	100.0	180	5	US-10-981-267-2
27	191	100.0	180	6	US-11-049-518-18

28	191	100.0	180	6	US-11-050-926-145	Sequence 145, App
29	191	100.0	275	5	US-10-821-234-971	Sequence 971, App
30	187	97.9	33	3	US-09-745-078A-5	Sequence 5, App1
31	187	97.9	33	4	US-10-374-624-5	Sequence 5, App1
32	185	96.9	1107	6	US-11-057-058-41	Sequence 41, App1
33	182	95.3	32	3	US-09-745-078A-6	Sequence 6, App1
34	182	95.3	32	4	US-10-374-624-6	Sequence 6, App1
35	177	92.7	31	3	US-09-745-078A-7	Sequence 7, App1
36	177	92.7	31	4	US-10-374-624-7	Sequence 7, App1
37	175	91.6	180	4	US-10-207-655-57	Sequence 57, App1
38	172	90.1	30	3	US-09-745-078A-8	Sequence 8, App1
39	172	90.1	30	4	US-10-374-624-8	Sequence 8, App1
40	168	88.0	29	3	US-09-745-078A-9	Sequence 9, App1
41	168	88.0	29	4	US-10-374-624-9	Sequence 9, App1
42	163	85.3	28	3	US-09-745-078A-10	Sequence 10, App1
43	163	85.3	28	4	US-10-374-624-10	Sequence 10, App1
44	158	82.7	27	3	US-09-745-078A-11	Sequence 11, App1
45	158	82.7	27	4	US-10-374-624-11	Sequence 11, App1

ALIGNMENTS

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RESULT 1
US-09-745-078A-2
; Sequence 2, Application US/09745078A
; Publication No. US20030050434A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 441842000100
; CURRENT APPLICATION NUMBER: US/09/745, 078A
; CURRENT FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo Sapien
; FEATURE:
; OTHER INFORMATION: Preplin
US-09-745-078A-2

Query Match      100.0%  Score 191;  DB 3;  Length 34;
Best Local Similarity 100.0%  Pred. No. 4.6e+18;
Matches 34;  Conservative 0;  Mismatch 0;  Indels 0;  Gaps 0;

QY      1  DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34
Db      1  DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34

RESULT 2
US-10-374-624-2
; Sequence 2, Application US/10374624
; Publication No. US20030166561A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 441842000100
; CURRENT APPLICATION NUMBER: US/10/374, 624
; CURRENT FILING DATE: 2003-02-24
; PRIOR APPLICATION NUMBER: US/09/745, 078A
; PRIOR FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
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; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo Sapien
; FEATURE:
; OTHER INFORMATION: Preptin
US-10-374-624-2
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Query Match          100.0%; Score 191; DB 4; Length 34;
Best Local Similarity 100.0%; Pred. No. 4,6e-18;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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```
QY      1 DVSTPPTVLPDNFPRTYPVGKFFQYDTWKSTQRL 34
DB      1 DVSTPPTVLPDNFPRTYPVGKFFQYDTWKSTQRL 34
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RESULT 3
US-10-632-366-1
; Sequence 1, Application US/10632366
; Publication No. US20040142393A1
; GENERAL INFORMATION:
; APPLICANT: COOPER, GARTH JAMES SMITH
; APPLICANT: BUCHANAN, CHRISTINE MAREE
; APPLICANT: JAMES, GABRIEL CHRISTOPHER
; TITLE OF INVENTION: METHODS OF USE OF COMPOUNDS WITH PREPTIN FUNCTION
; FILE REFERENCE: 49123.000033.UPL1
; CURRENT APPLICATION NUMBER: US/10/632,366
; CURRENT FILING DATE: 2003-07-31
; PRIOR APPLICATION NUMBER: 60/400,445
; PRIOR FILING DATE: 2002-08-01
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-632-366-1
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Query Match          100.0%; Score 191; DB 4; Length 34;
Best Local Similarity 100.0%; Pred. No. 4,6e-18;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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```
QY      1 DVSTPPTVLPDNFPRTYPVGKFFQYDTWKSTQRL 34
DB      1 DVSTPPTVLPDNFPRTYPVGKFFQYDTWKSTQRL 34
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RESULT 4
US-11-066-697-381
; Sequence 381, Application US/11066697
; Publication No. US20050187159A1
; GENERAL INFORMATION:
; APPLICANT: Bridon, Dominique P.
; APPLICANT: Ezrin, Alan M.
; APPLICANT: Milner, Peter G.
; APPLICANT: Holmes, Darren L.
; APPLICANT: Thibodeau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 500862002301
; CURRENT APPLICATION NUMBER: US/11/066,697
; CURRENT FILING DATE: 2005-02-25
; PRIOR APPLICATION NUMBER: 09/657,276
; PRIOR FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-15
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; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 381
; LENGTH: 35
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-11-066-697-381
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Query Match          100.0%; Score 191; DB 6; Length 35;
Best Local Similarity 100.0%; Pred. No. 4,7e-18;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY      1 DVSTPPTVLPDNFPRTYPVGKFFQYDTWKSTQRL 34
DB      2 DVSTPPTVLPDNFPRTYPVGKFFQYDTWKSTQRL 35
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RESULT 5
US-09-972-809-7
; Sequence 7, Application US/09972809
; Patent No. US20020151490A1
; GENERAL INFORMATION:
; APPLICANT: Sundeeep, Khosla
; APPLICANT: Conover, Cheryl A.
; TITLE OF INVENTION: TREATMENT OF OSTEOPOROSIS
; FILE REFERENCE: 07039/183001
; CURRENT APPLICATION NUMBER: US/09/972,809
; CURRENT FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: 09/428,226
; PRIOR FILING DATE: 1999-10-27
; PRIOR APPLICATION NUMBER: 60/045,607
; PRIOR FILING DATE: 1997-05-05
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 156
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-972-809-7
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Query Match          100.0%; Score 191; DB 3; Length 156;
Best Local Similarity 100.0%; Pred. No. 2,3e-17;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY      1 DVSTPPTVLPDNFPRTYPVGKFFQYDTWKSTQRL 34
DB      69 DVSTPPTVLPDNFPRTYPVGKFFQYDTWKSTQRL 102
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RESULT 6
US-10-872-198-122
; Sequence 122, Application US/10872198
; Publication No. US20050002897A1
; GENERAL INFORMATION:
; APPLICANT: Ulrich HAUPTS
; APPLICANT: Andre KOLTERMANN
; APPLICANT: Andreas SCHEIDIG
; APPLICANT: Christian VOETSMERIER
; APPLICANT: Ulrich Ketting
; TITLE OF INVENTION: NEW BIOLOGICAL ENTITIES AND USE THEREOF
; FILE REFERENCE: 04156.000204
; CURRENT APPLICATION NUMBER: US/10/872,198
; CURRENT FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 60/543,518
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/524,960
; PRIOR FILING DATE: 2003-11-25
; PRIOR APPLICATION NUMBER: EP 04003058
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: EP 03025871
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; PRIOR FILING DATE: 2003-11-11
; PRIOR APPLICATION NUMBER: EP 03025851
; PRIOR FILING DATE: 2003-11-10
; PRIOR APPLICATION NUMBER: EP 03013819
; PRIOR FILING DATE: 2003-06-18
; NUMBER OF SEQ ID NOS: 149
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 122
; LENGTH: 156
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-872-198-122

Query Match          100.0%; Score 191; DB 5; Length 156;
Best Local Similarity 100.0%; Pred. No. 2.3e-17;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34
69 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 102

RESULT 7
US-11-021-951-122
; Sequence 122, Application US/11021951
; Publication No. US20050175581A1
; GENERAL INFORMATION:
; APPLICANT: HAUPTS, Ulrich
; APPLICANT: KOLTERMANN, Andre
; APPLICANT: SCHEIDIG, Andreas
; APPLICANT: VOTSMEIER, Christian
; APPLICANT: Ketsling, Ulrich
; APPLICANT: COCO, Wayne Michael
; TITLE OF INVENTION: New Biological Entities And The Pharmaceutical
; FILE REFERENCE: 04156.0002U5
; CURRENT APPLICATION NUMBER: US/11/021,951
; PRIOR FILING DATE: 2004-12-22
; PRIOR APPLICATION NUMBER: 10/872,198
; PRIOR FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 60/543,518
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/524,960
; PRIOR FILING DATE: 2003-11-25
; PRIOR APPLICATION NUMBER: EP 04003058
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: EP 03025871
; PRIOR FILING DATE: 2003-11-11
; PRIOR APPLICATION NUMBER: EP 03025851
; PRIOR FILING DATE: 2003-11-10
; PRIOR APPLICATION NUMBER: EP 03013819
; PRIOR FILING DATE: 2003-06-18
; NUMBER OF SEQ ID NOS: 191
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 122
; LENGTH: 156
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-021-951-122

Query Match          100.0%; Score 191; DB 6; Length 156;
Best Local Similarity 100.0%; Pred. No. 2.3e-17;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34
69 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 102

RESULT 8
US-10-388-838-112
; Sequence 112, Application US/10388838
; Publication No. US20040180344A1
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; GENERAL INFORMATION:
; APPLICANT: David W. Morris
; APPLICANT: Marc Malandro
; TITLE OF INVENTION: Novel Therapeutic Targets in Cancer
; FILE REFERENCE: 529452001600
; CURRENT APPLICATION NUMBER: US/10/388,838
; CURRENT FILING DATE: 2003-03-14
; NUMBER OF SEQ ID NOS: 114
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 112
; LENGTH: 176
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-388-838-112

Query Match          100.0%; Score 191; DB 4; Length 176;
Best Local Similarity 100.0%; Pred. No. 2.6e-17;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34
91 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 124

RESULT 9
US-10-081-119-38
; Sequence 38, Application US/10081119
; Publication No. US20030045491A1
; GENERAL INFORMATION:
; APPLICANT: Reinhard, Christoph
; APPLICANT: Jefferson, Anne B.
; APPLICANT: Chan, Vivien W.
; TITLE OF INVENTION: TTK in Diagnosis and as a Therapeutic
; FILE REFERENCE: 16932.002
; CURRENT APPLICATION NUMBER: US/10/081,119
; CURRENT FILING DATE: 2002-02-21
; PRIOR APPLICATION NUMBER: 60/289,813
; PRIOR FILING DATE: 2001-02-21
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 38
; LENGTH: 180
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-081-119-38

Query Match          100.0%; Score 191; DB 4; Length 180;
Best Local Similarity 100.0%; Pred. No. 2.7e-17;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 34
93 DVSTPPTVLPDNFPRYPVGKFFQYDTWKSTORL 126

RESULT 10
US-10-136-841-2
; Sequence 2, Application US/10136841
; Publication No. US20030082176A1
; GENERAL INFORMATION:
; APPLICANT: Lebowitz, Jonathan
; APPLICANT: Beverly, Stephen
; TITLE OF INVENTION: SUBCELLULAR TARGETING OF THERAPEUTIC PROTEINS
; FILE REFERENCE: SYM-007
; CURRENT APPLICATION NUMBER: US/10/136,841
; CURRENT FILING DATE: 2002-08-22
; PRIOR APPLICATION NUMBER: US 60/287,531
; PRIOR FILING DATE: 2001-04-30
; PRIOR APPLICATION NUMBER: US 60/304,609
; PRIOR FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: US 60/329,461
; PRIOR FILING DATE: 2001-10-15
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; PRIOR APPLICATION NUMBER: US 60/351,276
; PRIOR FILING DATE: 2002-01-23
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
; LENGTH: 180
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-136-841-2

Query Match          100.0%; Score 191; DB 4; Length 180;
Best Local Similarity 100.0%; Pred. No. 2,7e-17;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DVSTPPTVLPDNFPKRYGVGKFFQYDTWKQSTQRL 34
    |||||||
Db 93 DVSTPPTVLPDNFPKRYGVGKFFQYDTWKQSTQRL 126

RESULT 11
US-10-097-340-145
; Sequence 145, Application US/10097340
; Publication No. US20030087250A1
; GENERAL INFORMATION:
; APPLICANT: John MONAHAN
; APPLICANT: Manjula GANNANARAPU
; APPLICANT: Sebastian HOERSCH
; APPLICANT: Shubhangt KAMATKAR
; APPLICANT: Steve G. KOVATS
; APPLICANT: Rachel E. MEYERS
; APPLICANT: Michael MORRISSEY
; APPLICANT: Peter OLANDT
; APPLICANT: Ami SEN
; APPLICANT: Peter VEIBY
; APPLICANT: Gordon B. MILLS
; APPLICANT: Robert C. BAST, Jr.
; APPLICANT: Karen LU
; APPLICANT: Rosemarie SCHMANDT
; APPLICANT: Xumel ZHAO
; APPLICANT: Karen GLATT
; TITLE OF INVENTION: Nucleic Acid Molecules and Proteins For The Identification,
; FILE REFERENCE: MRI-030
; TITLE OF INVENTION: Assessment, Prevention, and Therapy of Ovarian Cancer
; CURRENT APPLICATION NUMBER: US/10/097,340
; CURRENT FILING DATE: 2002-03-14
; PRIOR APPLICATION NUMBER: 60/276,025
; PRIOR FILING DATE: 2001-03-14
; PRIOR APPLICATION NUMBER: 60/325,149
; PRIOR FILING DATE: 2001-09-26
; PRIOR APPLICATION NUMBER: 60/276,026
; PRIOR FILING DATE: 2001-03-14
; PRIOR APPLICATION NUMBER: 60/324,967
; PRIOR FILING DATE: 2001/09/26
; PRIOR APPLICATION NUMBER: 60/311,732
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: 60/325,102
; PRIOR FILING DATE: 2001-09-26
; PRIOR APPLICATION NUMBER: 60/323,580
; PRIOR FILING DATE: 2001-09-19
; NUMBER OF SEQ ID NOS: 363
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 145
; LENGTH: 180
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-097-340-145

Query Match          100.0%; Score 191; DB 4; Length 180;
Best Local Similarity 100.0%; Pred. No. 2,7e-17;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DVSTPPTVLPDNFPKRYGVGKFFQYDTWKQSTQRL 34
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Db 93 DVSTPPTVLPDNFPKRYGVGKFFQYDTWKQSTQRL 126

RESULT 12
US-10-295-027-199
; Sequence 199, Application US/10295027
; Publication No. US20030232350A1
; GENERAL INFORMATION:
; APPLICANT: Afar, Daniel
; APPLICANT: Aziz, Natasha
; APPLICANT: Ginsberg, Wendy M.
; APPLICANT: Gish, Kurt C.
; APPLICANT: Glynn, Richard
; APPLICANT: Hevezi, Peter A.
; APPLICANT: Mack, David H.
; APPLICANT: Murray, Richard
; APPLICANT: Watson, Susan R.
; APPLICANT: Eos Biotechnology, Inc.
; TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and
; FILE REFERENCE: 018501-012500US
; CURRENT APPLICATION NUMBER: US/10/295,027
; CURRENT FILING DATE: 2002-11-13
; PRIOR APPLICATION NUMBER: US 09/663,733
; PRIOR FILING DATE: 2000-09-15
; PRIOR APPLICATION NUMBER: US 60/350,666
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: US 60/335,394
; PRIOR FILING DATE: 2001-11-15
; PRIOR APPLICATION NUMBER: US 60/332,464
; PRIOR FILING DATE: 2001-11-21
; PRIOR APPLICATION NUMBER: US 60/334,393
; PRIOR FILING DATE: 2001-11-29
; PRIOR APPLICATION NUMBER: US 60/340,376
; PRIOR FILING DATE: 2001-12-14
; PRIOR APPLICATION NUMBER: US 60/347,211
; PRIOR FILING DATE: 2002-01-08
; PRIOR APPLICATION NUMBER: US 60/347,349
; PRIOR FILING DATE: 2002-01-10
; PRIOR APPLICATION NUMBER: US 60/355,250
; PRIOR FILING DATE: 2002-02-08
; PRIOR APPLICATION NUMBER: US 60/356,714
; PRIOR FILING DATE: 2002-02-13
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 1386
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 199
; LENGTH: 180
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-295-027-199

Query Match          100.0%; Score 191; DB 4; Length 180;
Best Local Similarity 100.0%; Pred. No. 2,7e-17;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DVSTPPTVLPDNFPKRYGVGKFFQYDTWKQSTQRL 34
    |||||||
Db 93 DVSTPPTVLPDNFPKRYGVGKFFQYDTWKQSTQRL 126

RESULT 13
US-10-272-531A-2
; Sequence 2, Application US/10272531A
; Publication No. US20040005309A1
; GENERAL INFORMATION:
; APPLICANT: Lebowitz, Jonathan H
; APPLICANT: Beverley, Stephen
; APPLICANT: Sly, William S
; TITLE OF INVENTION: TARGETED THERAPEUTIC PROTEINS
; FILE REFERENCE: SYM-009
; CURRENT APPLICATION NUMBER: US/10/272,531A
; CURRENT FILING DATE: 2002-10-16
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; PRIOR APPLICATION NUMBER: US 60/384,452
; PRIOR FILING DATE: 2002-05-29
; PRIOR APPLICATION NUMBER: US 60/386,019
; PRIOR FILING DATE: 2002-06-05
; PRIOR APPLICATION NUMBER: US 60/408,816
; PRIOR FILING DATE: 2002-09-06
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 2
; LENGTH: 180
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-272-531A-2

Query Match      100.0%; Score 191; DB 4; Length 180;
Best Local Similarity 100.0%; Pred. No. 2.7e-17;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 DVSTPPTVLPDNFRPYVGKFFQYDTWKOSTORL 34
Db      93 DVSTPPTVLPDNFRPYVGKFFQYDTWKOSTORL 126

RESULT 14
US-10-173-999-99
; Sequence 99, Application US/10173999
; Publication No. US20040005563A1
; GENERAL INFORMATION:
; APPLICANT: Mack, David H.
; APPLICANT: Gish, Kurt C.
; APPLICANT: Bos Biotechnology, Inc.
; TITLE OF INVENTION: Methods of Diagnosis of Ovarian Cancer, Compositions
; TITLE OF INVENTION: and Methods of Screening for Modulators of Ovarian
; FILE REFERENCE: 018501-002420US
; CURRENT APPLICATION NUMBER: US/10/173,999
; CURRENT FILING DATE: 2002-06-17
; PRIOR APPLICATION NUMBER: US 60/299,234
; PRIOR FILING DATE: 2001-06-18
; PRIOR APPLICATION NUMBER: US 60/315,287
; PRIOR FILING DATE: 2001-08-27
; PRIOR APPLICATION NUMBER: US 60/350,666
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: US 60/372,246
; PRIOR FILING DATE: 2001-04-12
; NUMBER OF SEQ ID NOS: 163
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 99
; LENGTH: 180
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-173-999-99

Query Match      100.0%; Score 191; DB 4; Length 180;
Best Local Similarity 100.0%; Pred. No. 2.7e-17;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 DVSTPPTVLPDNFRPYVGKFFQYDTWKOSTORL 34
Db      93 DVSTPPTVLPDNFRPYVGKFFQYDTWKOSTORL 126

RESULT 15
US-10-272-483A-2
; Sequence 2, Application US/10272483A
; Publication No. US20040006008A1
; GENERAL INFORMATION:
; APPLICANT: Lebowitz, Jonathan H
; APPLICANT: Beverly, Stephen
; TITLE OF INVENTION: TARGETED THERAPEUTIC PROTEINS
; FILE REFERENCE: SYM-007CP
; CURRENT APPLICATION NUMBER: US/10/272,483A
; CURRENT FILING DATE: 2002-10-16
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; PRIOR APPLICATION NUMBER: US 60/287,531
; PRIOR FILING DATE: 2001-04-30
; PRIOR APPLICATION NUMBER: US 10/136,841
; PRIOR FILING DATE: 2002-04-30
; PRIOR APPLICATION NUMBER: US 60/384,452
; PRIOR FILING DATE: 2002-05-29
; PRIOR APPLICATION NUMBER: US 60/386,019
; PRIOR FILING DATE: 2002-06-05
; PRIOR APPLICATION NUMBER: US 60/408,816
; PRIOR FILING DATE: 2002-09-06
; PRIOR APPLICATION NUMBER: US 60/304,609
; PRIOR FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: US 60/329,461
; PRIOR FILING DATE: 2001-10-15
; PRIOR APPLICATION NUMBER: US 60/351,276
; PRIOR FILING DATE: 2002-01-23
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 2
; LENGTH: 180
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-272-483A-2

Query Match      100.0%; Score 191; DB 4; Length 180;
Best Local Similarity 100.0%; Pred. No. 2.7e-17;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 DVSTPPTVLPDNFRPYVGKFFQYDTWKOSTORL 34
Db      93 DVSTPPTVLPDNFRPYVGKFFQYDTWKOSTORL 126
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Search completed: May 21, 2006, 12:53:43
Job time : 104.333 secs

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November 2005

Published_Applications_Nucleic Acid and Published_Applications_Amino Acid database searches now generate two sets of results each. The Published_Applications_databases have been split into two parts to reduce the amount of time required for their daily updates. This results in more machine time being available for processing searches.

Newly published applications will appear in the Published_Applications_New databases: older published applications make up the Published_Applications_Main databases.

Searches run against Nucleic Acid Published_Applications produce two sets of results, with the extensions **.rnpbm** (Published_Applications_NA_Main) and **.rnpbn** (Published_Applications_NA_New).
Searches run against Amino Acid Published_Applications produce two sets of results, with the extensions **.rapbm** (Published_Applications_AA_Main) and **.rapbn** (Published_Applications_AA_New).

3. 11. 2005 20:07

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GenCore version 5.1.8
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: May 21, 2006, 12:48:45 ; Search time 4 Seconds
(without alignments)
18.157 Million cell updates/sec

Title: US-10-632-366-1

Perfect score: 191

Sequence: 1 DVSTPPTVLPDNPFRYPVGKFFQYDTWKSTQRL 34

Scoring table:

BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 21570 seqs, 2136119 residues

Total number of hits satisfying chosen parameters: 21570

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Maximum Match 100%

Maximum Match 100%
Listing first 45 summaries

Database :

Published Applications AA New:*

- 1: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US09_NEW_PUB_rep.*
- 2: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US06_NEW_PUB_rep.*
- 3: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US07_NEW_PUB_rep.*
- 4: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US08_NEW_PUB_rep.*
- 5: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/PCT_NEW_PUB_rep.*
- 6: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US10_NEW_PUB_rep.*
- 7: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US11_NEW_PUB_rep.*
- 8: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US06_NEW_PUB_rep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	47	24.6	269	7	US-11-246-999-127
2	46	24.1	438	6	US-10-196-749-110
3	45	23.6	228	1	US-09-949-925-110
4	43	22.5	309	7	US-11-249-111-72
5	41.5	21.7	477	7	US-11-264-784-112
6	40	20.9	108	7	US-11-091-234A-6
7	40	20.9	109	7	US-11-254-679-13
8	39.5	20.7	356	6	US-10-505-928-357
9	39	20.4	811	6	US-10-505-928-32
10	39	20.4	811	6	US-10-505-928-87
11	39	20.4	811	6	US-11-314-018-6
12	39	20.4	3460	6	US-10-505-928-104
13	38	19.9	123	7	US-11-254-182-34
14	38	19.9	365	7	US-11-251-465-25
15	38	19.9	847	6	US-10-505-928-300
16	38	19.9	3396	6	US-10-505-928-449
17	37.5	19.6	153	7	US-11-314-018-10
18	37.5	19.6	337	6	US-10-196-749-268
19	37.5	19.6	337	7	US-11-101-316-74
20	37.5	19.6	384	6	US-10-505-928-395
21	37.5	19.6	819	7	US-11-251-465-31
22	37.5	19.6	989	7	US-11-312-958-30
23	37.5	19.6	1332	7	US-11-314-018-18
24	37	19.4	100	6	US-10-489-730-12
25	37	19.4	100	6	US-10-489-730-13

26	37	19.4	100	6	US-10-489-730-14	Sequence 14, Appl
27	37	19.4	107	7	US-11-271-008-7	Sequence 7, Appl
28	37	19.4	118	7	US-11-297-317-2	Sequence 2, Appl
29	37	19.4	118	7	US-11-297-317-9	Sequence 9, Appl
30	37	19.4	118	7	US-11-297-317-10	Sequence 10, Appl
31	37	19.4	121	6	US-10-196-749-368	Sequence 368, Appl
32	37	19.4	241	7	US-11-254-185-3	Sequence 3, Appl
33	37	19.4	241	7	US-11-254-185-35	Sequence 35, Appl
34	37	19.4	426	6	US-10-489-730-6	Sequence 6, Appl
35	37	19.4	448	6	US-11-297-317-4	Sequence 4, Appl
36	37	19.4	450	6	US-10-489-730-4	Sequence 4, Appl
37	37	19.4	553	6	US-10-511-937-2563	Sequence 2563, Ap
38	37	19.4	587	6	US-10-489-730-2	Sequence 2, Appl
39	37	19.4	661	6	US-10-489-730-11	Sequence 11, Appl
40	37	19.4	855	7	US-11-254-185-2	Sequence 2, Appl
41	36.5	19.1	252	7	US-11-260-844-12	Sequence 12, Appl
42	36	18.8	190	7	US-11-268-890-4	Sequence 4, Appl
43	36	18.8	217	7	US-11-249-111-112	Sequence 112, Ap
44	36	18.8	415	6	US-10-511-937-2993	Sequence 2993, Ap
45	36	18.8	416	6	US-10-502-993-2	Sequence 2, Appl

ALIGNMENTS

RESULT 1
US-11-246-999-127
Sequence 127, Application US/11246999
Publication No. US20060099622A1
GENERAL INFORMATION:
APPLICANT: Ni et al.
TITLE OF INVENTION: 12 Human Secreted Proteins
FILE REFERENCE: PF489P2
CURRENT APPLICATION NUMBER: US/11/246,999
CURRENT FILING DATE: 2005-10-11
PRIOR APPLICATION NUMBER: US/09/984,130
PRIOR FILING DATE: 2001-10-29
PRIOR APPLICATION NUMBER: 60/243,792
PRIOR FILING DATE: 2000-10-30
PRIOR APPLICATION NUMBER: 09/836,353
PRIOR FILING DATE: 2001-04-18
PRIOR APPLICATION NUMBER: 60/198,407
PRIOR FILING DATE: 2000-04-19
PRIOR APPLICATION NUMBER: PCT/US99/25031
PRIOR FILING DATE: 1999-10-27
PRIOR APPLICATION NUMBER: 60/105,971
PRIOR FILING DATE: 1998-10-28
NUMBER OF SEQ ID NOS: 149
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 127
LENGTH: 269
TYPE: PRT
ORGANISM: Homo sapiens
US-11-246-999-127

Query Match 24.6%; Score 47; DB 7; Length 269;
Best Local Similarity 52.9%; Pred. No. 6.1;
Matches 9; Conservative 3; Mismatches 3; Indels 2; Gaps 1;

QY 5 PP--TVLPDNPFRYPVG 19
DB 143 PPAAGTLPNNYPCYVTG 159

RESULT 2
US-10-196-749-110
Sequence 110, Application US/10196749
Publication No. US20060094864A1
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Chen, Jian
APPLICANT: Desnoyers, Luc
APPLICANT: Goddard, Audrey

RESULT 3
US-09-949-925-110
Sequence 110, Application US/09949925
Publication No. US2006009575A9
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: 67 Human secreted proteins
FILE REFERENCE: P2023P2
CURRENT APPLICATION NUMBER: US/09/949, 925
CURRENT FILING DATE: 2001-09-12
PRIOR APPLICATION NUMBER: US 60/232,150
PRIOR FILING DATE: 2000-12-09
PRIOR APPLICATION NUMBER: PCT/US99/01621
PRIOR FILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: US 60/073,160
PRIOR FILING DATE: 1998-01-30
PRIOR APPLICATION NUMBER: US 60/073,159
PRIOR FILING DATE: 1998-01-30
PRIOR APPLICATION NUMBER: US 60/073,165
PRIOR FILING DATE: 1998-01-30
PRIOR APPLICATION NUMBER: US 60/073,164
PRIOR FILING DATE: 1998-01-30
PRIOR APPLICATION NUMBER: US 60/073,167
PRIOR FILING DATE: 1998-01-30

RESULT 5
US-11-264-784-112
; Sequence 112, Application No./11264784
; Publication No. US20060094092A1
; GENERAL INFORMATION:
; APPLICANT: E.I. duPont de Nemours & Co., Inc.
; APPLICANT: Damude, Howard Glenn
; APPLICANT: Gillies, Peter John
; APPLICANT: Macool, Daniel Joseph
; APPLICANT: Pícatagallo, Stephen K.


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; APPLICANT: Pollak, Dana M. Walters
; APPLICANT: Ragghianti, James John
; APPLICANT: Xue, Zhixiong
; APPLICANT: Yadav, Narendra S.
; APPLICANT: Zhang, Hongxiang
; APPLICANT: Zhu, Quim
; TITLE OF INVENTION: HIGH ARACHIDONIC ACID PRODUCING STRAINS OF YARROWIA LIPOLYTICA
; FILE REFERENCE: CL3136 USA
; CURRENT APPLICATION NUMBER: US/11/264,784
; CURRENT FILING DATE: 2005-11-01
; NUMBER OF SEQ ID NOS: 375
; SOFTWARE: Patentin version 3.3
; SEQ ID NO 112
; LENGTH: 477
; TYPE: PRT
; ORGANISM: Saccharomyces cerevisiae (GenBank Accession No. NP_010935)
; US-11-264-784-112

Query Match      21.7%; Score 41.5; DB 7; Length 477;
Best Local Similarity 30.3%; Pred. No. 74;
Matches 10; Conservative 6; Mismatches 10; Indels 7; Gaps 2;

QY      8 VLPDNPFRYPVGRFQYDTW-----KQSTQRL 34
Db      29 IMSDNKAYSI-KFLTFNTWGLKYVSGHRKRL 60

RESULT 6
US-11-091-234A-6
; Sequence 6, Application US/11091234A
; Publication No. US2006008845A1
; GENERAL INFORMATION:
; APPLICANT: Lu, Jin
; TITLE OF INVENTION: METHOD AND APPARATUS FOR ANALYZING AND GENERATING
; FILE REFERENCE: CENS052NP
; CURRENT APPLICATION NUMBER: US/11/091,234A
; CURRENT FILING DATE: 2005-03-28
; PRIOR APPLICATION NUMBER: 60/558,090
; PRIOR FILING DATE: 2004-03-31
; NUMBER OF SEQ ID NOS: 41
; SOFTWARE: Patentin version 3.3
; SEQ ID NO 6
; LENGTH: 108
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MISC FEATURE
; LOCATION: (1)..(108)
; OTHER INFORMATION: Vh4 heavy chain variable region
; FEATURE:
; NAME/KEY: MISC FEATURE
; LOCATION: (1)..(33)
; OTHER INFORMATION: framework 1
; FEATURE:
; NAME/KEY: MISC FEATURE
; LOCATION: (34)..(34)
; OTHER INFORMATION: complementarity determining region 1 (CDR1), X is any amino acid.
; FEATURE:
; NAME/KEY: MISC FEATURE
; LOCATION: (35)..(48)
; OTHER INFORMATION: framework 2
; FEATURE:
; NAME/KEY: MISC FEATURE
; LOCATION: (49)..(49)
; OTHER INFORMATION: complementarity determining region 2 (CDR2), X is any amino acid.
; FEATURE:
; NAME/KEY: MISC FEATURE
; LOCATION: (50)..(81)
; OTHER INFORMATION: framework 3
; FEATURE:
; NAME/KEY: MISC FEATURE
; LOCATION: (82)..(82)
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; OTHER INFORMATION: complementarity determining region 3 (CDR3), X is any amino acid.
; FEATURE:
; NAME/KEY: MISC FEATURE
; LOCATION: (83)..(108)
; OTHER INFORMATION: framework 4
; US-11-091-234A-6

Query Match      20.9%; Score 40; DB 7; Length 108;
Best Local Similarity 61.5%; Pred. No. 18;
Matches 8; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

QY      2 VSRPTVLPDNP 14
Db      91 VSSAPTKAPDVFP 103

RESULT 7
US-11-254-679-13
; Sequence 13, Application US/11254679
; Publication No. US20060099207A1
; GENERAL INFORMATION:
; APPLICANT: Wu, Herren
; APPLICANT: Allan, Christian
; APPLICANT: Gao, Changshou
; APPLICANT: An, Ling-Ling
; APPLICANT: Kiener, Peter
; APPLICANT: Mao, Su-Yau
; APPLICANT: Coyle, Anthony
; TITLE OF INVENTION: High Affinity Antibodies Against HMGB1 and Method of Use Thereof
; FILE REFERENCE: HB601US
; CURRENT APPLICATION NUMBER: US/11/254,679
; CURRENT FILING DATE: 2005-10-21
; PRIOR APPLICATION NUMBER: 60/620,726
; PRIOR FILING DATE: 2004-10-22
; PRIOR APPLICATION NUMBER: 60/651,512
; PRIOR FILING DATE: 2005-02-10
; PRIOR APPLICATION NUMBER: 60/558,572
; PRIOR FILING DATE: 2005-03-07
; PRIOR APPLICATION NUMBER: 60/662,944
; PRIOR FILING DATE: 2005-03-18
; PRIOR APPLICATION NUMBER: 60/713,712
; PRIOR FILING DATE: 2005-09-09
; NUMBER OF SEQ ID NOS: 103
; SOFTWARE: Patentin version 3.3
; SEQ ID NO 13
; LENGTH: 109
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-11-254-679-13

Query Match      20.9%; Score 40; DB 7; Length 109;
Best Local Similarity 31.0%; Pred. No. 18;
Matches 9; Conservative 7; Mismatches 13; Indels 0; Gaps 0;

QY      4 TPTPTVLPDNPFRYPVGRFQYDTWKSTQ 32
Db      77 TISSLPDDFATYYCCQYNSYTFPGGTX 105

RESULT 8
US-10-505-928-357
; Sequence 357, Application US/10505928
; Publication No. US20060088532A1
; GENERAL INFORMATION:
; APPLICANT: Ludwig Institute for Cancer Research et al.
; TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
; FILE REFERENCE: 28967/39178
; CURRENT APPLICATION NUMBER: US/10/505,928
; CURRENT FILING DATE: 2004-08-27
; PRIOR APPLICATION NUMBER: US 60/363,019
; PRIOR FILING DATE: 2002-03-07
; NUMBER OF SEQ ID NOS: 866
; SOFTWARE: Patentin 3.2
```

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; SEQ ID NO 357
; LENGTH: 3256
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-505-928-357
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Best Local Similarity 31.4%; Pred. No. 1.6e+03;
Matches 11; Conservative 4; Mismatches 17; Indels 3; Gaps 1;
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QY      2 VTPTVLPDNFPRYPVGKFP---FOYDTWKQSTQRL 33
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Db      326 VQTPSKAVGASFPFLYEPAAKTKTPVQISQGNSTGRCK 360
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RESULT 9
US-10-505-928-32
; Sequence 32, Application US/10505928
; Publication No. US20060088532A1
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; GENERAL INFORMATION:
; APPLICANT: Ludwig Institute for Cancer Research et al.
; TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
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; FILE REFERENCE: 28967/39178
```

```
; CURRENT APPLICATION NUMBER: US/10/505,928
```

```
; CURRENT FILING DATE: 2004-08-27
```

```
; PRIOR APPLICATION NUMBER: US 60/363,019
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; PRIOR FILING DATE: 2002-03-07
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; NUMBER OF SEQ ID NOS: 866
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; SOFTWARE: PatentIn 3.2
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; SEQ ID NO 32
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; LENGTH: 811
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; TYPE: PRT
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; ORGANISM: Homo sapiens
US-10-505-928-32
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Best Local Similarity 28.6%; Pred. No. 3.2e+02;
Matches 10; Conservative 4; Mismatches 17; Indels 4; Gaps 1;
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RESULT 10
US-10-505-928-87
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; Sequence 87, Application US/10505928
; Publication No. US20060088532A1
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; GENERAL INFORMATION:
; APPLICANT: Ludwig Institute for Cancer Research et al.
```

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; TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
```

```
; FILE REFERENCE: 28967/39178
```

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; CURRENT APPLICATION NUMBER: US/10/505,928
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; CURRENT FILING DATE: 2004-08-27
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; PRIOR APPLICATION NUMBER: US 60/363,019
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; PRIOR FILING DATE: 2002-03-07
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```
; NUMBER OF SEQ ID NOS: 866
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; SOFTWARE: PatentIn 3.2
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; SEQ ID NO 87
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; LENGTH: 811
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; TYPE: PRT
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; ORGANISM: Homo sapiens
US-10-505-928-87
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Query Match          20.4%; Score 39; DB 6; Length 811;
Best Local Similarity 28.6%; Pred. No. 3.2e+02;
Matches 10; Conservative 4; Mismatches 17; Indels 4; Gaps 1;
```

```
QY      4 TPTPTVLPDNFPRYP---VGKFPQYDTWKQSTQRL 34
      ||| | | | | | | | | | | | | | | | | | | |
Db      441 TTPAGLAELPQPQIQGGRFLAGVAMGGAAREL 475
```

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RESULT 11
US-11-314-018-6
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; Sequence 6, Application US/11314018
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; Publication No. US20060090220A1
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; GENERAL INFORMATION:
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```
; APPLICANT: TANAKA, Masao
```

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; APPLICANT: YOKOYAMA, Tomoko
```

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; APPLICANT: AOYAGI, Moriochi
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; APPLICANT: HASEGAWA, Makoto
```

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; APPLICANT: EHARA, Gaku
```

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; APPLICANT: KIMURA, Masaharu
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```
; APPLICANT: NISHIHASHI, Hideji
```

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; TITLE OF INVENTION: Polypeptide having larvace growth inhibiting or insecticidal effect on scababaeidae insects and
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; TITLE OF INVENTION: insecticidal effect on scababaeidae insects and
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; FILE REFERENCE: OP135
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; CURRENT APPLICATION NUMBER: US/11/314,018
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; CURRENT FILING DATE: 2005-12-22
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; PRIOR APPLICATION NUMBER: JP 2001-115754
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; PRIOR FILING DATE: 2001-04-13
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; PRIOR APPLICATION NUMBER: JP 2001-203463
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; PRIOR FILING DATE: 2001-07-04
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; NUMBER OF SEQ ID NOS: 22
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; SOFTWARE: PatentIn Ver. 2.0
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; SEQ ID NO 6
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; LENGTH: 1386
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; TYPE: PRT
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; ORGANISM: Bacillus popilliae
US-11-314-018-6
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Query Match          20.4%; Score 39; DB 7; Length 1386;
Best Local Similarity 35.0%; Pred. No. 6.3e+02;
Matches 7; Conservative 4; Mismatches 9; Indels 0; Gaps 0;
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QY      9 LPDNFPRYPVGKFPQYDTWK 28
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Db      855 VPDNIPHAPIPVCGEFDRCX 874
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RESULT 12
US-10-505-928-104
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; Sequence 104, Application US/10505928
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; Publication No. US20060088532A1
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; GENERAL INFORMATION:
; APPLICANT: Ludwig Institute for Cancer Research et al.
```

```
; TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
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; FILE REFERENCE: 28967/39178
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; CURRENT APPLICATION NUMBER: US/10/505,928
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```
; CURRENT FILING DATE: 2004-08-27
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; PRIOR APPLICATION NUMBER: US 60/363,019
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; PRIOR FILING DATE: 2002-03-07
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; NUMBER OF SEQ ID NOS: 866
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; SOFTWARE: PatentIn 3.2
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; SEQ ID NO 104
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; LENGTH: 3460
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; TYPE: PRT
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; ORGANISM: Homo sapiens
US-10-505-928-104
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Query Match          20.4%; Score 39; DB 6; Length 3460;
Best Local Similarity 66.7%; Pred. No. 1.9e+03;
Matches 8; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
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QY      6 PTVLPDNFPRYP 17
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Db      2515 PTVLQDNFMRAP 2526
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RESULT 13
US-11-254-182-34
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; Sequence 34, Application US/11254182
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; Publication No. US20060088532A1
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; GENERAL INFORMATION:
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GenCore version 5.1.8
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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:31:21 ; Search time 120.333 Seconds
(without alignments)
129.186 Million cell updates/sec

Title: US-10-632-366-2

Perfect score: 184
Sequence: 1 DVSTSGAVLPDPFRYPVGKFRFKDTWRQSAGRL 34

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2589679 seqs, 457216429 residues

Total number of hits satisfying chosen parameters: 2589679

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database :

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5: geneseqp2001s:*
6: geneseqp2002s:*
7: geneseqp2003as:*
8: geneseqp2004s:*
9: geneseqp2005s:*
10: geneseqp2006s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	184	100.0	34	4	AAB31482 Aab31482 Amino aci
2	184	100.0	34	4	ADM35842 Adm35842 Rat prept
3	184	100.0	34	8	ADM96217 Rat prept
4	184	100.0	180	5	ABR57375 Abb57375 Rat mucoc
5	184	100.0	180	7	ADD46366 Add46366 Rat Prote
6	177	96.2	34	4	AAB31483 Aab31483 Amino aci
7	177	96.2	34	8	ADM35843 Adm35843 Mouse pre
8	177	96.2	34	8	ADM96216 Adm96216 Murine pr
9	177	96.2	353	8	ABO84530 Abo84530 Mouse can
10	142	77.2	34	4	AAB31481 Aab31481 Amino aci
11	142	77.2	34	8	ADM35841 Adm35841 Human pre
12	142	77.2	34	8	ADM96218 Adm96218 Human pre
13	142	77.2	35	4	AAB91207 Aab91207 Insulin a
14	142	77.2	155	9	AED59621 Aed59621 Human ins
15	142	77.2	156	9	ADV90292 Adv90292 Protease-
16	142	77.2	180	1	AAP60579 Aap60579 Human pre
17	142	77.2	180	3	AAV70364 Aay70364 Insulin-1
18	142	77.2	180	5	ABG96345 Abg96345 Human ova
19	142	77.2	180	5	ABP54951 Abp54951 Human IGF
20	142	77.2	180	6	ABR48184 Abr48184 Human bla
21	142	77.2	180	6	AAB33320 Aae33320 Human ins
22	142	77.2	180	7	ABU61624 Abu61624 Human ins
23	142	77.2	180	7	ADB80535 Adb80535 Ovarian c

24	142	77.2	180	7	ADD46367 Add46367 Human Pro
25	142	77.2	180	7	ADN38881 Adn38881 Cancer/an
26	142	77.2	180	8	ADR47499 Adr47499 Human IGF
27	142	77.2	180	8	ADH17912 Adh17912 Human ins
28	142	77.2	180	8	ADJ58605 Adj58605 Human ins
29	142	77.2	180	8	ADR08576 Adr08576 Human pro
30	142	77.2	180	8	ADR46399 Adr46399 Human ins
31	142	77.2	180	8	ABM81211 Abm81211 Tumour-as
32	142	77.2	180	8	ABO84532 Abo84532 Human can
33	142	77.2	180	8	ADQ39470 Adq39470 Human myo
34	142	77.2	180	9	ADY86802 Ady86802 Human IGF
35	142	77.2	180	9	AEA89444 Aea89444 Human ins
36	142	77.2	180	9	AED08781 Aed08781 Human ins
37	142	77.2	180	10	AER05090 Aef05090 Human ins
38	142	77.2	262	5	ABP69409 Abp69409 Human pol
39	142	77.2	275	9	AED74143 Aed74143 Human pla
40	138	75.0	33	4	AAB31484 Aab31484 Amino aci
41	138	75.0	180	1	AAP93525 Aap93525 Sequence
42	135	73.4	30	4	AAB31487 Aab31487 Amino aci
43	135	73.4	31	4	AAB31486 Aab31486 Amino aci
44	135	73.4	32	4	AAB31485 Aab31485 Amino aci
45	133	72.3	34	4	AAB31480 Aab31480 Bioactive

ALIGNMENTS

RESULT 1
ID AAB31482
X X AAB31482 standard; peptide; 34 AA.
X X
X X AAB31482;
X X
X X 20-APR-2001 (first entry)
X X
X X Amino acid sequence of rat preptin peptide.
X X
X X Bioactive peptide; preptin; pancreatic islet beta-cell;
X X glucose-mediated insulin secretion; insulin synthesis; type II diabetes;
X X glucose mediated insulin secretion.
X X
X X Rattus sp.
X X
X X
X X
X X PD
X X 28-DEC-2000.
X X
X X PF 19-JUN-2000; 2000MO-NZ000102.
X X PR 18-JUN-1999; 99NZ-00336359.
X X
X X PA (COOP/) COOPER G J S.
X X PA (BUCH/) BUCHANAN C M.
X X
X X PI Cooper GJS, Buchanan CM;
X X
X X DR WPI; 2001-112313/12.
X X DR N-PSDB; AAF24866.
X X
X X PT New mammalian peptide with preptin functionality, useful for preventing
X X or treating Type 2 diabetes mellitus by stimulating insulin secretion.
X X
X X Claim 4; Page 27; 51pp; English.
X X
X X The present sequence represents a rat preptin peptide. The peptide
X X corresponds to Arg69-Ileu102 of the proIGF-II B peptide. Preptin is
X X secreted by pancreatic islet beta-cells which enhances glucose-mediated
X X insulin secretion. Preptin peptides and their analogues are useful in
X X preparing medicaments for preventing or treating a condition which
X X results in or involves deficient insulin synthesis, secretion or action
X X e.g. type II diabetes. Antibodies specific to preptin peptides are useful
X X in an immunological assay such as radioimmunoassay (RIA), IRMA
X X (undefined) or Enzyme linked immunosorbent assay (ELISA) for

quantitatively measuring preptin in a biological fluid preferably in cerebrospinal fluid. Agonists or antagonists of preptin peptides are useful for modulating glucose mediated insulin secretion

Sequence 34 AA;

Query Match 100.0%; Score 184; DB 4; Length 34;
Best Local Similarity 100.0%; Pred. No. 4,4e-20;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 DVSTSOAVLPDDPPRYVGKFFKFDTRWSAGRL 34
1 DVSTSOAVLPDDPPRYVGKFFKFDTRWSAGRL 34

RESULT 2
ADM35842
ID ADM35842 standard; peptide; 34 AA.

ADM35842;
03-JUN-2004 (first entry)

Rat preptin, SEQ ID NO:2, useful for treating beta-cell disorders.

Rat; preptin; pancreatic islet beta-cell; fibroblast; proliferation;
differentiation; beta-cell disorder; diabetes; insulin resistance;
insulin resistance; insulin secretion disorder; hyperglycaemia; wound;
burns; ulcer; mucous membrane disruption;
peripheral nervous system injury; Alzheimer's disease;
Parkinson's disease; stroke; amyotrophic lateral sclerosis;
muscular dystrophy; diabetic neuropathy; myocarditis;
myocardial infarction; cardiac disease; acute renal insufficiency;
ischaemia; antidiabetic; vulnery; antitumor; antiinflammatory;
gastrintestinal; neurotropic; neuroprotective; antiparkinsonian;
cerebroprotective; muscular; cardiac; nephrotropic; dermatological;
protein therapy.

Rattus sp.

WO2004012761-A1.

12-FEB-2004.

01-AUG-2003; 2003WO-NZ000171.

01-AUG-2002; 2002NZ-00520536.

01-AUG-2002; 2002US-0400445P.

(PROT-) PROTETIX CORP LTD.

Cooper GJS, Buchanan CM, James GC;

WPI; 2004-157011/15.

Use of preptin, preptin analogs, preptin agonists, their salts or derivatives, for treating a mediated disease, disorder or condition mediated in whole or in part by beta-cells or beta-cell dysfunction, e.g. ulcers or inflammation.

Claim 2; SEQ ID NO 2; 63pp; English.

The invention relates to a method for treating a disorder mediated by pancreatic islet beta-cells or beta-cell dysfunction by administering preptin (ADM35841-ADM35843), preptin analogues, preptin agonists or salts or derivatives thereof. Preptin are able to stimulate the proliferation and differentiation of beta-cells and fibroblasts. CC Preptins, preptin analogues, preptin agonists, their salts and derivatives are useful in the treatment of internal or external injuries CC or wounds (e.g., burns, ulcers, surgical wounds or mucous membrane CC disruption), conditions characterised by decreased beta-cell mass or CC number; beta-cell mediated diseases (e.g., type 1 or type 2 diabetes); CC and conditions characterised by insulin resistance, undestrably low

insulin secretion, hyperglycaemia or post-prandial hyperglycaemia. They may also be used for treating and/or preventing peripheral nervous system injury; Alzheimer's disease; Parkinson's disease; stroke; amyotrophic lateral sclerosis; muscular dystrophy; diabetic neuropathy; CC myocardiopathies such as myocarditis and myocardial infarction; cardiac CC disease and acute attack; and acute renal insufficiency caused by CC ischaemia. They are additionally useful for increasing or maintaining beta-cell mass or beta-cell number; for stimulating beta-cell proliferation via cell differentiation or neogenesis; for increasing type CC -cell mass via cell differentiation or neogenesis; for decreasing cell CC death of motor neurons; for increasing muscular end plates; promoting the CC functional recovery of damaged sciatic nerves; preventing peripheral CC motor paralysis during or as a result of chemotherapy; and for improving CC myocardial function. The present sequence represents rat preptin, which CC is specifically claimed for use in the method of the invention.

Sequence 34 AA;

Query Match 100.0%; Score 184; DB 8; Length 34;
Best Local Similarity 100.0%; Pred. No. 4,4e-20;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 DVSTSOAVLPDDPPRYVGKFFKFDTRWSAGRL 34
1 DVSTSOAVLPDDPPRYVGKFFKFDTRWSAGRL 34

RESULT 3
ADM96217
ID ADM96217 standard; peptide; 34 AA.

ADM96217;

17-JUN-2004 (first entry)

Rat preptin peptide used to treat various bone conditions Seqid 2.

osteoblast growth; osteoblast apoptosis; preptin;

proinsulin-like growth factor II; osteoporosis; osteopenia;
osteogenesis imperfecta; primary hyperparathyroidism; endocrine disorder;

corticosteroid treatment; autoimmune arthritis; drug use; rat.

Rattus sp.

WO2004012760-A1.

12-FEB-2004.

31-JUL-2003; 2003WO-NZ000168.

01-AUG-2002; 2002US-0400443P.

(AUCR-) AUCRLAND UNISERVICES LTD.

Cornish J, Reid IR, Cooper GJS, Buchanan CM;

WPI; 2004-157010/15.

Use of preptin, preptin analog or preptin agonist for treating a bone PT condition (e.g. osteoporosis or osteopenia), increasing or maintaining PT bone density, stimulating osteoblast growth, or modulating osteoblast PT apoptosis.

Claim 2; SEQ ID NO 2; 29pp; English.

This invention relates to a novel method for treating a bone condition. CC Specifically, it refers to increasing or maintaining bone density. The CC stimulating osteoblast growth, or modulating osteoblast apoptosis. The CC present invention comprises administering preptin, a preptin analogue or CC agonist thereof, which corresponds to residues Asp-69 to Leu-102 of the CC proinsulin-like growth factor II that is co-secreted with insulin from CC pancreatic islet beta cells in response to glucose. Accordingly, such CC compositions that exhibit osteopathic activities can be used to treat or

CC ameliorate diseases including osteoporosis, osteopenia, bone defects or
CC osteogenesis imperfecta, as well as bone loss resulting from primary
CC hyperparathyroidism, endocrine disorders, corticosteroid treatment,
CC autoimmune arthritis or addictive drug use. This peptide sequence is the
CC rat prelin peptide of the invention.

XX SQ Sequence 34 AA;

Query Match 100.0%; Score 184; DB 8; Length 34;
Best Local Similarity 100.0%; Pred. No. 4, 4e-20;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDFPRYPVGKFKFKEDTWRQSAGRL 34
1 DVSTSQAVLPDDFPRYPVGKFKFKEDTWRQSAGRL 34

RESULT 4
ID ABB57375 standard; protein; 180 AA.
XX ABB57375;

XX AC 07-AUG-2003 (revised)
DT 08-MAR-2002 (first entry)

DE Rat mucocardial cell proliferation associated polypeptide SEQ ID NO 2.

KW Rat; heart; cardiact; myocardial necrosis; cardiac hypertrophy;
KW cardiac insufficiency.

XX Rattus norvegicus.

XX WO200183705-A1.

XX PD 08-NOV-2001.

XX PF 27-APR-2001; 2001WO-JP003700.

XX PR 27-APR-2000; 2000JP-00126741.

XX PA (KYOW) KYOWA HAKKO KOGYO KK.

XX PI Yamada Y, Sekine S, Kikuchi Y, Sakurada K;

XX DR WPI, 2002-075160/10.

XX DR N-PSDB; ABI99915.

PT Genes having differential expression in fetal and adult heart tissue
PT useful for screening potential drugs for promoting repair of damage
PT caused by myocardial necrosis.

XX PS Claim 53; Page 78-79; 171pp; Japanese.

CC The invention relates to gene sequences (ABI99915-ABI99934) having
CC modified expression in fetal heart tissue as compared to adult heart
CC tissue and the encoded proteins (ABB57375-ABB57392). The genes have
CC cardiact activity and may be useful in the promotion of the repair of
CC damage to heart tissue caused by myocardial necrosis. The gene sequences
CC are useful for screening potential compounds for the ability to influence
CC disease associated with myocardial necrosis. Drugs identified by the
CC screening methods may be used to treat and prevent disease with which
CC myocardial necrosis is associated, such as cardiac hypertrophy and
CC cardiac insufficiency. Diagnosis of diseases such as those above is also
CC disclosed. (Updated on 07-AUG-2003 to correct OS field.)

XX SQ Sequence 180 AA;

Query Match 100.0%; Score 184; DB 5; Length 180;
Best Local Similarity 100.0%; Pred. No. 2, 8e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDFPRYPVGKFKFKEDTWRQSAGRL 34

Db 93 DVSTSQAVLPDDFPRYPVGKFKFKEDTWRQSAGRL 126

RESULT 5
ID ADD46366 standard; protein; 180 AA.
XX ADD46366;

XX AC 29-JAN-2004 (first entry)

DE Rat Protein P01346, SEQ ID NO 12045.

KW Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
KW chronic constriction injury; CCI; spared nerve injury; SNI; Chung.

XX Rattus norvegicus.

XX WO2003016475-A2.

XX PD 27-FEB-2003.

XX PF 14-AUG-2002; 2002WO-US025765.

XX PR 14-AUG-2001; 2001US-0312147P.

XX PR 01-NOV-2001; 2001US-0346382P.

XX PR 26-NOV-2001; 2001US-033347P.

XX PA (GENO) GEN HOSPITAL CORP.

XX PA (FARB) BAYER AG.

XX PI Woolf C, D'urso D, Befort K, Costigan M;

XX DR WPI, 2003-268312/26.

XX DR GENBANK; P01346.

XX PS New composition comprising two or more isolated polypeptides, useful for
XX PT preparing a medicament for treating pain in an animal.

XX Claim 1; Page; 1017pp; English.

CC The invention discloses a composition comprising two or more isolated rat
CC or human polynucleotides or a polynucleotide which represents a fragment,
CC derivative or allelic variation of the nucleic acid sequence. Also
CC claimed are a vector comprising the novel polynucleotide, a host cell
CC comprising the vector, a method for identifying a nucleotide sequence
CC which is differentially regulated in an animal subjected to pain and a
CC kit to perform the method, an array, a method for identifying an agent
CC that increases or decreases the expression of the polynucleotide sequence
CC that is differentially expressed in neuronal tissue of a first animal
CC subjected to pain, a method for identifying a compound which regulates
CC the expression of a polynucleotide sequence which is differentially
CC expressed in an animal subjected to pain, a method for identifying a
CC compound that regulates the activity of one or more of the
CC polynucleotides, a method for producing a pharmaceutical composition, a
CC method for identifying a compound or small molecule that regulates the
CC activity in an animal of one or more of the polypeptides given in the
CC specification, a method for identifying a compound useful in treating
CC pain and a pharmaceutical composition comprising the one or more
CC polypeptides or their antibodies. The polynucleotide or the compound that
CC modulates its activity is useful for preparing a medicament for treating
CC pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
CC injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
CC therapy). The sequence presented is a rat protein (shown in Table 2 of
CC the specification) which is differentially expressed during pain. Note:
CC The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic form directly from WIPO at
CC ftp.wipo.int/pub/published_pcc_sequences.

XX SQ Sequence 180 AA;

Query Match 100.0%; Score 184; DB 7; Length 180;

[illegible]

XX	AC	ADM35843;
XX	DT	03-JUN-2004 (first entry)
XX	DE	Mouse preptin, SEQ ID NO:3, useful for treating beta-cell disorders.
XX	XX	
XX	KM	Mouse; murine; preptin; pancreatic islet beta-cell; fibroblast;
XX	KM	proliferation; differentiation; beta-cell disorder; diabetes;
XX	KM	insulin resistance; insulin resistance; insulin secretion disorder;
XX	KM	hyperglycaemia; wound; burns; ulcer; mucous membrane disruption;
XX	KM	peripheral nervous system injury; Alzheimer's disease;
XX	KM	Parkinson's disease; stroke; amyotrophic lateral sclerosis;
XX	KM	muscular dystrophy; diabetic neuropathy; myocarditis;
XX	KM	myocardial infarction; cardiac disease; acute renal insufficiency;
XX	KM	ischaemia; antidiabetic; valvular; antitumor; antiinflammatory;
XX	KM	gastrointestinal; nootropic; neuroprotective; antiparkinsonian;
XX	KW	cerebroprotective; muscular; cardiant; nephrotropic; dermatological;
XX	XX	protein therapy.
XX	OS	Mus sp.
XX	PN	WO2004012761-A1.
XX	PD	12-FEB-2004.
XX	PF	01-AUG-2003; 2003WO-NZ000171.
XX	PR	01-AUG-2002; 2002NZ-00520536.
XX	PR	01-AUG-2002; 2002US-0400445P.
XX	PA	(PROT-) PROTOMIX CORP LTD.
XX	PT	Cooper GJS, Buchanan CM, James GC;
XX	DR	WPI; 2004-157011/15.
XX	PT	Use of preptins, preptin analogs, preptin agonists, their salts or
XX	PT	derivatives, for treating a mediated disease, disorder or condition
XX	PT	mediated in whole or in part by beta-cells or beta-cell dysfunction, e.g.
XX	PT	ulcers or inflammation.
PS	Claim 2; SEQ ID NO 3; 63pp; English.	
XX	XX	
XX	XX	The invention relates to a method for treating a disorder mediated by
XX	CC	pancreatic islet beta-cells or beta-cell dysfunction by administering
XX	CC	preptins (ADM35841-ADM35843), preptin analogues, preptin agonists or
XX	CC	salts or derivatives thereof. Preptins are able to stimulate the
XX	CC	proliferation and differentiation of beta-cells and fibroblasts.
XX	CC	Preptins, preptin analogues, preptin agonists, their salts and
XX	CC	derivatives are useful in the treatment of internal or external injuries
XX	CC	or wounds (e.g., burns, ulcers, surgical wounds or mucous membrane
XX	CC	disruption); conditions characterised by decreased beta-cell mass or
XX	CC	number; beta-cell mediated diseases (e.g., type 1 or type 2 diabetes);
XX	CC	and conditions characterised by insulin resistance, undesirably low
XX	CC	insulin secretion, hyperglycaemia or post-prandial hyperglycaemia. They
XX	CC	may also be used for treating and/or preventing peripheral nervous system
XX	CC	injury; Alzheimer's disease; Parkinson's disease; stroke; amyotrophic
XX	CC	lateral sclerosis; muscular dystrophy; diabetic neuropathy;
XX	CC	myocardioleptosis such as myocarditis and myocardial infarction; cardiac
XX	CC	disease and acute attack; and acute renal insufficiency caused by
XX	CC	ischaemia. They are additionally useful for increasing or maintaining
XX	CC	beta-cell mass or beta-cell number; for stimulating beta-cell
XX	CC	proliferation via cell differentiation or neogenesis; for decreasing cell
XX	CC	-cell mass via cell differentiation or neogenesis; for decreasing the
XX	CC	death of motor neurons; for increasing muscular end plates; promoting the
XX	CC	functional recovery of damaged sciatic nerves; preventing peripheral
XX	CC	motor paralysis during or as a result of chemotherapy; and for improving
XX	CC	myocardial function. The present sequence represents mouse preptin, which
XX	CC	is specifically claimed for use in the method of the invention.
XX	Sequence 34 AA:	

Query Match 96.2%; Score 177; DB 8; Length 34;

Best Local Similarity 94.1%; Pred. No. 5e-19; Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVKFKFEDTWROSAGRL 34
 |||||
 1 DVSTSOAVLPDDPPRYVGVKFKFQYDTWROSAGRL 34

RESULT 8
 ID ADM96216 standard; peptide; 34 AA.

XX ADM96216;

XX 17-JUN-2004 (first entry)

DE Murine preprotin peptide used to treat various bone conditions Seqid 1.

XX osteoblast growth; osteoblast apoptosis; preprotin;

KM protinsulin-like growth factor II, osteoparathic, osteoporosis; osteopenia;

KM osteogenesis imperfecta; primary hyperparathyroidism; endocrine disorder;

XX corticosteroid treatment; autoimmune arthritis; drug use; murine; mouse.

XX Mus sp.

XX WO2004012760-A1.

XX 12-FEB-2004.

XX 31-JUL-2003; 2003WO-NZ000168.

XX 01-AUG-2002; 2002US-0400443P.

XX (AUCK-) AUCKLAND UNISERVICES LTD.

XX Cornish J, Reid IR, Cooper GJS, Buchanan CW,

XX WPI; 2004-157010/15.

PT Use of preprotin, preprotin analog or preprotin agonist for treating a bone condition (e.g. osteoporosis or osteopenia), increasing or maintaining bone density, stimulating osteoblast growth, or modulating osteoblast apoptosis.

PS Claim 2; SEQ ID NO 1; 29pp; English.

XX This invention relates to a novel method for treating a bone condition. Specifically, it refers to increasing or maintaining bone density. CC stimulating osteoblast growth, or modulating osteoblast apoptosis. The CC present invention comprises administering preprotin, a preprotin analogue or CC agonist thereof, which corresponds to residues Asp-69 to Leu-102 of the CC protinsulin-like growth factor II that is co-secreted with insulin from CC pancreatic islet beta cells in response to glucose. Accordingly, such CC compositions that exhibit osteoparathic activities can be used to treat or CC ameliorate diseases including osteoporosis, osteopenia, bone defects or CC osteogenesis imperfecta, as well as bone loss resulting from primary CC hyperparathyroidism, endocrine disorders, corticosteroid treatment, CC autoimmune arthritis or addictive drug use. This peptide sequence is the CC murine preprotin peptide of the invention.

XX Sequence 34 AA;

Query Match 96.2%; Score 177; DB 8; Length 34;
 Best Local Similarity 94.1%; Pred. No. 5e-19;
 Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVKFKFEDTWROSAGRL 34
 |||||
 1 DVSTSOAVLPDDPPRYVGVKFKFQYDTWROSAGRL 34

RESULT 9
 AB084530

ID AB084530 standard; protein; 353 AA.

XX AB084530;

XX 18-NOV-2004 (first entry)

DE Mouse cancer-associated protein MP15-022.1.

KM Mouse; cancer-associated protein; cytostatic; cancer; leukaemia;

XX lymphoma; CAP.

XX Mus musculus.

XX WO2004074320-A2.

XX 02-SEP-2004.

XX 17-FEB-2004; 2004WO-US0044730.

XX 14-FEB-2003; 2003US-00367094.

XX 14-MAR-2003; 2003US-00388838.

XX 15-APR-2003; 2003US-00417375.

XX 13-JUN-2003; 2003US-00461862.

XX 15-SEP-2003; 2003US-00663431.

XX 15-DEC-2003; 2003US-00737318.

XX (SAGR-) SAGRES DISCOVERY INC.

XX Morris DW, Morris DW, Malandro MS;

XX WPI; 2004-652914/63.

XX N-PSDB; ABD32743.

PT New isolated cancer-associated polynucleotides and polypeptides useful for diagnosing, preventing or treating cancers, especially lymphoma and leukemia, or in screening for agents that modulate cancer.

PS disclosure; seqid 339; 310pp; English.

XX The invention relates to an isolated nucleic acid comprising at least 10 CC contiguous nucleotides of any of the 233 polynucleotide sequences given CC in the specification, or its complement. The nucleic acids encode cancer- CC associated proteins. Also included are an expression vector comprising CC the isolated nucleic acid cited above, a host cell comprising the above CC recombinant nucleic acid or expression vector, a microarray for detecting CC a cancer-associated (CA) nucleic acid comprising at least one probe CC comprising at least 10 contiguous nucleotides of any of the above- CC mentioned nucleotide sequences, an isolated polypeptide (encoded within CC an open reading frame of a CA sequence selected from any of the 95 CC polynucleotide sequences as mentioned in the specification, or its CC complement), an isolated antibody, (or its antigen binding fragment) that CC binds to the above polypeptide, a hybridoma that produces the above CC monoclonal antibody, a pharmaceutical composition comprising the above CC antibody and a pharmaceutical excipient, a kit for detecting cancer CC cells (comprising the antibody cited above, methods for diagnosing cancer CC or for detecting the presence or absence of cancer cells in an CC individual, a method for inhibiting growth of cancer cells in an CC individual, a method for delivering a therapeutic agent to cancer cells CC in an individual, an electronic library comprising the above CC polynucleotide or polypeptide (or their fragments), methods of screening CC for anticancer activity or for a bioactive agent capable of modulating CC the activity of a CA protein (CAP), methods for detecting cancer CC associated with expression of a polypeptide in a test cell sample, a CC method for treating cancers and a method for inhibiting the expression of CC CA gene in a cell. The composition and methods are useful for detecting, CC diagnosing, preventing and treating cancers, especially lymphoma and CC leukaemia. These may also be used in screening for agents that modulate CC cancer. The present sequence is a mouse CAP protein sequence. Note: The CC sequence data for this patent did not form part of the printed CC specification, but was obtained in electronic format directly from WIPO CC at ftp.wipo.int/pub/published_pct_sequences

XX Sequence 353 AA;

Query Match 96.2%; Score 177; DB 8; Length 353;
 Best Local Similarity 94.1%; Pred. No. 6,7e-18;
 Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRPYVGKFFKFDPTWRQAGRL 34
 |||||
 DB 266 DVSTSOAVLPDDPPRPYVGKFFQYDTWRQAGRL 299
 |||||

RESULT 10
 AAB31481
 ID AAB31481 standard; peptide; 34 AA.
 XX AAB31481;
 AC AAB31481;
 XX
 DT 20-APR-2001 (first entry)
 XX
 DE Amino acid sequence of human preproinsulin peptide.
 XX
 KW Bioactive peptide; preproinsulin; pancreatic islet beta-cell;
 KW glucose-mediated insulin secretion; insulin synthesis; type II diabetes;
 KW glucose mediated insulin secretion.
 XX
 OS Homo sapiens.
 XX
 PN WO200078805-A1.
 XX
 PD 28-DEC-2000.
 XX
 PF 19-JUN-2000; 2000WO-NZ000102.
 XX
 PR 18-JUN-1999; 99NZ-00336359.
 XX
 PA (COOP/) COOPER G J S.
 PA (BUCH/) BUCHANAN C M.
 XX
 PI Cooper GJS, Buchanan CM;
 XX
 DR WPI; 2001-112313/12.
 DR N-PSDB; AAF24865.
 XX
 PT New mammalian peptide with preproinsulin functionality, useful for preventing
 PT or treating Type 2 diabetes mellitus by stimulating insulin secretion.
 PS
 XX
 PS Claim 3; Page 27; 51pp; English.
 CC The present sequence represents a human preproinsulin peptide. The peptide
 CC corresponds to Arg99-Leu102 of the proIGF-II B peptide. Preproinsulin is
 CC secreted by pancreatic islet beta-cells which enhances glucose-mediated
 CC insulin secretion. Preproinsulin peptides and their analogues are useful in
 CC preparing medicaments for preventing or treating a condition which
 CC results in or involves deficient insulin synthesis, secretion or action
 CC e.g. type II diabetes. Antibodies specific to preproinsulin peptides are useful
 CC in an immunological assay such as radioimmunoassay (RIA), IRMA
 CC (undefined) or Enzyme linked immunosorbent assay (ELISA) for
 CC quantitatively measuring preproinsulin in a biological fluid preferably in
 CC cerebrospinal fluid. Agonists or antagonists of preproinsulin peptides are
 CC useful for modulating glucose mediated insulin secretion
 XX
 SO Sequence 34 AA;

Query Match 77.2%; Score 142; DB 4; Length 34;
 Best Local Similarity 73.5%; Pred. No. 9,8e-14;
 Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRPYVGKFFKFDPTWRQAGRL 34
 |||||
 DB 1 DVSTPPTVLPDNPFRYPVGKFFQYDTWRQAGRL 34
 |||||

RESULT 11
 ADM35841
 ID ADM35841 standard; peptide; 34 AA.
 XX
 AC ADM35841;
 XX
 DT 03-JUN-2004 (first entry)
 XX
 DE Human preproinsulin, SEQ ID NO:1, useful for treating beta-cell disorders.
 XX
 KW Human; preproinsulin; pancreatic islet beta-cell; fibroblast; proliferation;
 KW differentiation; beta-cell disorder; diabetes; insulin resistance;
 KW insulin resistance; insulin secretion disorder; hyperglycaemia; wound;
 KW burn; ulcer; mucous membrane disruption;
 KW peripheral nervous system injury; Alzheimer's disease;
 KW Parkinson's disease; stroke; amyotrophic lateral sclerosis;
 KW muscular dystrophy; diabetic neuropathy; myocarditis; myocarditis;
 KW myocardial infarction; cardiac disease; acute renal insufficiency;
 KW ischaemia; antidiabetic; vulnery; antidiabetic; anti-inflammatory;
 KW gastrointestinal; neurotrophic; neuroprotective; antiparkinsonian;
 KW cerebroprotective; muscular; cardiac; nephrotropic; dermatological;
 KW protein therapy.
 XX
 OS Homo sapiens.
 XX
 PN WO2004012761-A1.
 XX
 PD 12-FEB-2004.
 XX
 PF 01-AUG-2003; 2003WO-NZ000171.
 XX
 PR 01-AUG-2002; 2002NZ-00520536.
 XX
 PR 01-AUG-2002; 2002US-0400445P.
 XX
 PA (PROT-) PROTEMIX CORP LTD.
 XX
 PI Cooper GJS, Buchanan CM, James GC;
 XX
 DR WPI; 2004-157011/15.
 XX
 PT Use of preproinsulin, preproinsulin agonists, their salts or
 PT derivatives, for treating a mediated disease, disorder or condition
 PT mediated in whole or in part by beta-cells or beta-cell dysfunction, e.g.
 PT ulcers or inflammation.
 XX
 PS Claim 2; SEQ ID NO 1; 63pp; English.
 CC The invention relates to a method for treating a disorder mediated by
 CC pancreatic islet beta-cells or beta-cell dysfunction by administering
 CC preproinsulin (ADM35841-ADM35843), preproinsulin agonists or
 CC salts or derivatives thereof. Preproinsulin are able to stimulate the
 CC proliferation and differentiation of beta-cells and fibroblasts.
 CC Preproinsulin, preproinsulin analogues, preproinsulin agonists, their salts and
 CC derivatives are useful in the treatment of internal or external injuries
 CC or wounds (e.g., burns, ulcers, surgical wounds or mucous membrane
 CC disruption); conditions characterised by decreased beta-cell mass or
 CC number; beta-cell mediated diseases (e.g., type 1 or type 2 diabetes);
 CC and conditions characterised by insulin resistance, undesirably low
 CC insulin secretion, hyperglycaemia or post-prandial hyperglycaemia. They
 CC may also be used for treating and/or preventing peripheral nervous system
 CC injury; Alzheimer's disease; Parkinson's disease; stroke; amyotrophic
 CC lateral sclerosis; muscular dystrophy; diabetic neuropathy;
 CC myocardialopathies such as myocarditis and myocardial infarction; cardiac
 CC disease and acute attack; and acute renal insufficiency caused by
 CC ischaemia. They are additionally useful for increasing or maintaining
 CC beta-cell mass or beta-cell number; for stimulating beta-cell
 CC proliferation via cell differentiation or neogenesis; for increasing cell
 CC cell mass via cell differentiation or neogenesis; for decreasing cell
 CC death of motor neurons; for increasing muscular end plates; promoting the
 CC functional recovery of damaged sciatic nerves; preventing peripheral
 CC motor paralysis during or as a result of chemotherapy; and for improving
 CC myocardial function. The present sequence represents human preproinsulin, which
 CC is specifically claimed for use in the method of the invention.
 XX
 SO Sequence 34 AA;

Query Match 77.2%; Score 142; DB 8; Length 34;
Best Local Similarity 73.5%; Pred. No. 9.8e-14;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDFPRYPVGKFKFEDTWRQSGARL 34
1 DVSTPPTVLPDNPFRYPVGKFKFQYDTWKOSTORL 34
DB

RESULT 12
ADM96218
ID ADM96218 standard; peptide; 34 AA.
XX
AC ADM96218;
XX
DT 17-JUN-2004 (first entry)
XX
DE Human preptin peptide used to treat various bone conditions SeqID 3.
XX

KM osteoblast growth; osteoblast apoptosis; preptin;
KW proinsulin-like growth factor II; osteopathic; osteoporosis; osteopenia;
KM osteogenesis imperfecta; primary hyperparathyroidism; endocrine disorder;
KM corticosteroid treatment; autoimmune arthritis; drug use; human.
XX
OS Homo sapiens.
XX
PN WO2004012760-A1.
XX
PD 12-FEB-2004.
XX

PF 31-JUL-2003; 2003WO-NZ000168.
XX
PR 01-AUG-2002; 2002US-0400443P.
XX
PA (AUCK-) AUCKLAND UNISERVICES LTD.
XX

PI Cornish J, Reid IR, Cooper GJS, Buchanan CM;
XX
XX WPI; 2004-157010/15.
XX

PT Use of preptin, preptin analog or preptin agonist for treating a bone
PT condition (e.g. osteoporosis or osteopenia), increasing or maintaining
PT bone density, stimulating osteoblast growth, or modulating osteoblast
PT apoptosis.
XX

PS Claim 2; SEQ ID NO 3; 29pp; English.
XX

CC This invention relates to a novel method for treating a bone condition.
CC Specifically, it refers to increasing or maintaining bone density,
CC stimulating osteoblast growth, or modulating osteoblast apoptosis. The
CC present invention comprises administering preptin, a preptin analogue or
CC agonist thereof, which corresponds to residues Asp-69 to Leu-102 of the
CC proinsulin-like growth factor II that is co-secreted with insulin from
CC pancreatic islet beta cells in response to glucose. Accordingly, such
CC compositions that exhibit osteopathic activities can be used to treat or
CC ameliorate diseases including osteoporosis, osteopenia, bone defects or
CC osteogenesis imperfecta, as well as bone loss resulting from primary
CC hyperparathyroidism, endocrine disorders, corticosteroid treatment,
CC autoimmune arthritis or addictive drug use. This peptide sequence is the
CC human preptin peptide of the invention.
XX

XX
SQ Sequence 34 AA;

Query Match 77.2%; Score 142; DB 8; Length 34;
Best Local Similarity 73.5%; Pred. No. 9.8e-14;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDFPRYPVGKFKFEDTWRQSGARL 34
1 DVSTPPTVLPDNPFRYPVGKFKFQYDTWKOSTORL 34
DB

RESULT 13

AAB91207
ID AAB91207 standard; peptide; 35 AA.
XX
AC AAB91207;
XX

DT 22-JUN-2001 (first entry)
XX

DE Insulin and insulin-like peptide SEQ ID NO:381.
XX

KM Protection; endogenous therapeutic peptide; peptidase; conjugation;
KM blood component; modification; succinimidy1; maleimido group; amino;
KM hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX

OS Homo sapiens.
XX
OS Synthetic.
XX

PN WO200069900-A2.
XX

PD 23-NOV-2000.
XX

PF 17-MAY-2000; 2000WO-US013576.
XX

PR 17-MAY-1999; 99US-0134406P.
XX

PR 10-SEP-1999; 99US-0153406P.
XX

PR 15-OCT-1999; 99US-0159783P.
XX

PA (CONJ-) CONJUCHEM INC.
XX

PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudau K;
XX

DR WPI; 2001-112059/12.
XX

PT Modifying and attaching therapeutic peptides to albumin prevents
PT peptidase degradation, useful for increasing length of in vivo activity.
XX

PS Disclosure; Page 321-322; 733pp; English.
XX

CC The present invention describes a modified therapeutic peptide (I)
CC comprising a therapeutically active amino acid region (III) and a
CC reactive group (II) (e.g. succinimidy1 and maleimido groups) attached to
CC a less therapeutically active amino acid region (IV), which covalently
CC bonds with amino/hydroxyl/thiol groups on blood components to form a
CC peptidease stabilised therapeutic peptide composed of 3-50 amino acids.
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC factors and neurotransmitters, to protect them from peptidase activity in
CC vivo for the treatment of various disorders. Endogenous therapeutic
CC peptides are not suitable as drug candidates as they require frequent
CC administration due to rapid degradation by peptidases in the body.
CC Modifying and attaching therapeutic peptides to albumin prevents or
CC reduces the action of peptidases to increase length of activity (half
CC life) and specificity as bonding to large molecules decreases
CC intracellular uptake and interference with physiological processes.
CC AAB90829 to AAB92441 represent peptides which can be used in the
CC exemplification of the present invention
XX

XX
SQ Sequence 35 AA;

Query Match 77.2%; Score 142; DB 4; Length 35;
Best Local Similarity 73.5%; Pred. No. 1e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDFPRYPVGKFKFEDTWRQSGARL 34
1 DVSTPPTVLPDNPFRYPVGKFKFQYDTWKOSTORL 35
DB

RESULT 14
AED59621
ID AED59621 standard; protein; 155 AA.
XX
AC AED59621;
XX

XX

```
DT 29-DEC-2005 (first entry)
XX
XX Human insulin growth factor 2 (IGF2) polypeptide.
DE
XX Insulin growth factor 2; IGF2; cell growth; cell differentiation.
XX
XX Homo sapiens.
OS
XX IN9900401-14.
XX
XX 04-MAR-2005.
XX
XX 07-APR-1999; 99IN-CH000401.
XX
XX 07-APR-1999; 99IN-CH000401.
XX
XX (ZYMO ) ZYMOGENETICS INC.
XX
XX Conklin DC, Lofton-Day CE, Lok SI, Jaspers SR;
PI
XX WPI; 2005-557657/57.
XX
XX Insulin homologs.
XX
XX Disclosure; Fig 1; 78pp; English.
XX
XX The invention relates to polynucleotide and polypeptide sequences for a
CC novel insulin homolog referred to as Zins3. The polynucleotide sequences
CC encoding the Zins3 polypeptides are located on chromosome 12. The present
CC invention also includes antibodies to the Zins3 polypeptides. The Zins3
CC polynucleotide and polypeptide sequences of the invention are useful for
CC identifying and isolating receptors involved in growth and
CC differentiation of Zins3 responsive cells. This sequence represents human
CC insulin growth factor 2 (IGF2) that shows homology to human Zins3.
XX
XX SQ Sequence 155 AA;
XX
XX Query Match 77.2%; Score 142; DB 9; Length 155;
XX Best Local Similarity 73.5%; Pred. No. 5.3e-13;
XX Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;
QY 1 DVSTSQAVLPDDPPRYVGVKFFKFDTRWQSAGRL 34
DB 93 DVSTPPTVLPDNPFRYPVGVKFFQYDTWKSTORL 126
XX
XX RESULT 15
XX ADV90292
XX ID ADV90292 standard; protein; 156 AA.
XX
XX AC ADV90292;
XX
XX 10-MAR-2005 (first entry)
XX
XX Protease-hydrolysed polypeptide #69.
XX
XX Protease; immune disorder; inflammation; musculoskeletal disease;
XX dermatological disease; gastrointestinal disease; endocrine disease;
XX metabolic disorder; cancer; hematological disease;
XX cardiovascular disease; neurological disease; neurodegenerative disease;
XX growth disorder; respiratory disease; genitourinary disease;
XX gynecological disorder; nutritional disorder; infection; cytostatic;
XX gastrointestinal-gen.; antiinflammatory; antidiabetic; analgesic;
XX antidiabetic; osteopathic; antidiabetic; nephrotoxic;
XX cardiovascular-gen.; immunosuppressive; respiratory-gen.; antipsoriatic;
XX antiallergic; dermatological; enzyme; hydrolysis.
XX
XX OS Homo sapiens.
XX
XX PN WO2004113522-A1.
XX
XX 29-DEC-2004.
XX
```

```
PF 18-JUN-2004; 2004WO-EP051173.
XX
XX 18-JUN-2003; 2003EP-00013819.
XX
XX 10-NOV-2003; 2003EP-00025851.
XX
XX 11-NOV-2003; 2003EP-00025871.
XX
XX 11-FEB-2004; 2004EP-00003058.
XX
XX (DIRE-) DIREVO BIOTECH AG.
XX
XX Haupts U, Koltermann A, Scheidig A, Voetsmeier C, Ketting U;
PI
XX WPI; 2005-057985/06.
XX
XX PT Proteases with defined specificity for a target substrate useful for
XX treating a specific disease related to the target substrate, such as
XX cancer, asthma, diabetes, inflammatory disorders and psoriasis.
XX
XX Claim 30; SEQ ID NO 122; 250pp; English.
XX
XX The invention relates to the use of a protease with defined specificity
CC for a target substrate for preparing a medicament for the treatment of a
CC specific disease related to the target substrate. The invention also
CC relates to a pharmaceutical or diagnostic composition comprising one or
CC more enzymes in the use cited, optionally comprising pharmaceutically or
CC diagnostically acceptable carriers, excipients and/or auxiliary agents, a
CC method for cleaving a target substrate in vivo or in vitro comprising
CC contacting the target substrate with a protease as cited in the use
CC mentioned, and a method for treatment of a disease in a patient connected
CC with a specific target substrate comprising administering to the patient
CC a protease with defined specificity for the specific target substrate.
CC The protease hydrolyses the target substrate and eliminates or reduces
CC one or more biological activities, physico-chemical properties or
CC pharmacological properties of the target protein and/or activates or
CC increases one or more biological activities, physico-chemical properties
CC or pharmacological properties of the target protein, and/or adds one or
CC more biological activities, physico-chemical properties or
CC pharmacological properties to the target protein. The protease may be
CC administered to treat immune disorders, inflammatory disorders,
CC musculoskeletal diseases, dermatological diseases, gastrointestinal
CC diseases, endocrine diseases, metabolic disorder, cancers, hematological
CC diseases, cardiovascular diseases, neurological diseases,
CC neurodegenerative diseases, growth disorders, respiratory diseases,
CC genitourinary diseases, gynecological disorders, nutritional disorders
CC and infections. This sequence represents a polypeptide hydrolysed by a
CC protease used in the scope of the invention.
XX
XX SQ Sequence 156 AA;
XX
XX Query Match 77.2%; Score 142; DB 9; Length 156;
XX Best Local Similarity 73.5%; Pred. No. 5.3e-13;
XX Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;
QY 1 DVSTSQAVLPDDPPRYVGVKFFKFDTRWQSAGRL 34
DB 69 DVSTPPTVLPDNPFRYPVGVKFFQYDTWKSTORL 102
XX
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Job time : 123.333 secs

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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:37:56 ; Search time 19.6667 Seconds

(without alignments)
166.341 Million cell updates/sec

Title: US-10-632-366-2

Perfect score: 184
Sequence: 1 DVTSQAVLPDDPRYPVGKFKEDTWRQAGRL 34

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 9621673 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database :
1: PIR 80:*
2: PIR2:*
3: PIR3:*
4: PIR4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	184	100.0	180	1	IGRT2
2	177	96.2	180	2	A24913
3	148	80.4	128	2	I57671
4	147	79.9	181	2	B60738
5	142	77.2	180	1	IGHU2
6	142	77.2	183	2	I67610
7	142	77.2	183	2	S02423
8	128	69.6	179	2	S04858
9	120	65.2	155	1	IGBO2
10	91	49.5	93	2	I53642
11	53.5	29.1	498	2	S56868
12	52.5	28.5	2109	2	TJ1352
13	52	28.3	613	2	S66977
14	51	27.7	556	2	F66405
15	50.5	27.4	575	2	G86231
16	50	27.2	205	2	AG1345
17	50	27.2	1698	2	T13800
18	49	26.6	483	2	S25606
19	49	26.6	522	2	D96913
20	49	26.6	638	2	S67605
21	49	26.6	864	2	JC4624
22	48.5	26.4	473	1	AC3874
23	48.5	26.4	1230	2	S53974
24	48	26.1	132	2	S36196
25	48	26.1	241	2	T26909
26	48	26.1	343	2	G95300
27	47.5	25.8	627	2	G81719
28	47.5	25.8	197	1	YTBS7
29	47.5	25.8	214	2	B46244

30	47.5	25.8	383	2	T15698	hypothetical prote
31	47.5	25.8	1012	2	T00958	hypothetical prote
32	47.5	25.8	1037	2	D96786	protein F10A5.15 (
33	47	25.5	110	2	PH1024	19 heavy chain V r
34	47	25.5	117	2	E83998	hypothetical prote
35	47	25.5	171	2	AH3310	ribosomal RNA meth
36	47	25.5	247	2	T36178	hypothetical prote
37	47	25.5	377	2	T26965	hypothetical prote
38	47	25.5	396	2	PQ0813	glycoprotein E1 -
39	47	25.5	404	2	T37762	guanine trna-ribos
40	47	25.5	552	2	C64310	methyl coenzyme M
41	47	25.5	557	2	F69481	probable acid-CoA
42	47	25.5	568	2	S42225	major envelope gly
43	47	25.5	1043	2	H83329	probable RND efflu
44	47	25.5	1069	2	C85349	Ca2+-transporting
45	47	25.5	1093	2	T08551	Ca2+-transporting

ALIGNMENTS

RESULT 1
IGRT2
Insulin-like growth factor II precursor - rat
N:Alternate names: IGF-II; multiplicative stimulating polypeptide
C:Species: Rattus norvegicus (Norway rat)
C>Date: 18-Dec-1981 #sequence_revision 04-Dec-1986 #ext_change 09-Jul-2004
C/Accession: A25350; A25598; A93554; A92329; A92505; I60178; I58056; I52428; I57695; I5
R/Funzio, R.; Chiaricelli, L.; Brown, A.L.; Graham, D.E.; Reicher, M.M.; Bruni, C.B.
J. Biol. Chem. 261, 17138-17149, 1986
A>Title: Structure and expression of the rat insulin-like growth factor II (IGF-II) ge
A/Reference number: A25350; PMID:87057436; PMID:3023383
A/Accession: A25350
A/Molecule type: DNA
A/Residues: 1-180 <FRU>
A/Cross-references: UNIPROT:P01346; UNIPARC:UPI000012D40E; GB:M13871; GB:J02637; NID:92
R/Soares, M.B.; Turken, A.; Ishii, D.; Mills, L.; Episkopou, V.; Cotter, S.; Zellin, S
J. Mol. Biol. 192, 737-752, 1986
A>Title: Rat insulin-like growth factor II gene. A single gene with two promoters expe
A/Reference number: A25598; PMID:87226166; PMID:2438416
A/Accession: A25598
A/Molecule type: DNA
A/Residues: 1-180 <SOA>
A/Cross-references: UNIPARC:UPI000012D40E; GB:X02213; NID:956428; PIDN:CAA26136.1; PID:
R/Bento Soares, M.; Ishii, D.N.; Efstratiadis, A.
Nucleic Acids Res. 13, 1119-1134, 1985
A>Title: Developmental and tissue-specific expression of a family of transcripts relate
A/Reference number: A93554; PMID:85215534; PMID:3889836
A/Accession: A93554
A/Molecule type: mRNA
A/Residues: 1-180 <BEN>
A/Cross-references: UNIPARC:UPI000012D40E; GB:X02213; NID:956428; PIDN:CAA26136.1; PID:
J. Biol. Chem. 256, 6859-6865, 1981
R/Margardt, H.; Todaro, G.J.; Henderson, L.E.; Oroszlan, S.
A>Title: Purification and primary structure of a polypeptide with multiplicative-stimul
A/Reference number: A92329; PMID:81215670; PMID:7016879
A/Accession: A92329
A/Molecule type: protein
A/Residues: 25-56; 'G', '58-91 <MAR>
A/Cross-references: UNIPARC:UPI0000141BCA
R/Hylik, V.W.; Teplov, D.B.; Kent, S.B.H.; Straus, D.S.
J. Biol. Chem. 260, 14417-14420, 1985
A>Title: Identification of a peptide fragment from the carboxyl-terminal extension regi
A/Reference number: A92505; PMID:86033940; PMID:4055782
A/Accession: A92505
A/Molecule type: protein
A/Residues: 92-180 <HYL>
A/Cross-references: UNIPARC:UPI000017358F
R/Deno, T.; Takahashi, K.; Matsuguchi, T.; Endo, H.; Yamamoto, M.
Biochim. Biophys. Acta 950, 411-419, 1998
A>Title: Transcriptional deviation of the rat insulin-like growth factor II gene initiat
A/Reference number: I60178; PMID:89000793; PMID:3167060
A/Accession: I60178

A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 1-180 <RES>
 A:Cross-references: UNIPARC:UPI000012D40E; EMBL:X13101; NID:g56412; PIDN:CAA31493.1; PID
 R:Whitfield, H.J.; Bruni, C.B.; Frunzio, R.; Terrell, J.E.; Nissley, S.P.; Rechler, M.M.
 Nature 312, 277-280, 1984
 A:Title: Isolation of a cDNA clone encoding rat insulin-like growth factor- II precursor
 A:Reference number: 158058; MWID:85061532; PMID:6390212
 A:Accession: 158058
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 62-180 <RES>
 A:Cross-references: UNIPARC:UPI00001709GB; GB:M30273; NID:g204923; PIDN:AAA41432.1; PID:
 R:Jeno, T.; Takahashi, K.; Matsuguchi, T.; Ikejiri, K.; Endo, H.; Yamamoto, M.
 Biochim. Biophys. Acta 1009, 27-34, 1989
 A:Title: Multiple polyadenylation sites in a large 3'-most exon of the rat insulin-like
 A:Reference number: 152428; MWID:90001243; PMID:2477062
 A:Accession: 152428
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 103-180 <RES>
 A:Cross-references: UNIPARC:UPI000000677; EMBL:X16703; NID:g288512; PIDN:CAA34674.1; PI
 R:Chiarotti, L.; Brown, A.L.P.; Frunzio, R.; Clemmons, D.R.; Rechler, M.M.; Bruni, C.B.
 Mol. Endocrinol. 2, 1115-1126, 1988
 A:Title: Structure of the rat insulin-like growth factor II transcriptional unit: Hetero
 ribonucleic acid splicing.
 A:Reference number: 157695; MWID:89127259; PMID:3221878
 A:Accession: 157695
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 103-180 <RES>
 A:Cross-references: UNIPARC:UPI000000677; GB:M31221; NID:g206667; PIDN:AAA42046.1; PID:
 R:Rechler, M.M.; Bruni, C.B.; Whitfield, H.J.; Yang, Y.W.
 Cancer Cells 3, 131-138, 1985
 A:Title: Characterization of the biosynthetic precursor for rat insulin- like growth fac
 A:Reference number: 152680
 A:Accession: 152680
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 27-56, 'G', 58-180 <RES>
 A:Cross-references: UNIPARC:UPI000006963; GB:M38688; NID:g204925; PIDN:AAA41433.1; PID:
 C:Comment: Although structurally and functionally related to insulin, the insulin-like g
 ls; in vivo, their functions appear to differ. IGF-II is influenced by placental lactog
 C:Genetics:
 A:Gene: IGFII
 A:Introns: 53/1; 102/3
 C:Superfamily: Insulin
 C:Keywords: growth factor; mitogen; plasma
 F:1-24/Domain: signal sequence #status predicted <SIG>
 F:25-91/Product: insulin-like growth factor II (active) #status experimental <MAT>
 F:25-56/Domain: insulin B chain-like #status experimental <DOB>
 F:57-64/Domain: insulin connecting C peptide-like #status experimental <CPE>
 F:65-85/Domain: insulin A chain-like #status experimental <DOA>
 F:86-91/Domain: D peptide #status experimental <DDP>
 F:92-180/Domain: carboxyl-terminal propeptide (B peptide) #status experimental <CHE>
 F:33-71, 45-84, 70-75/Disulfide bonds: #status predicted

Query Match 100.0%; Score 184; DB 1; Length 180;
 Best Local Similarity 100.0%; Pred. No. 1, 8e-19;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPFRYPVGKFKFDTWRQSAQRL 34
 DB 93 DVSTQAVLPDDPFRYPVGKFKFDTWRQSAQRL 126

RESULT 2
 A24913
 insulin-like growth factor II precursor - mouse
 C:Species: Mus musculus (house mouse)
 C:Date: 07-Mar-1988 #sequence revision 07-Mar-1988 #text change 09-Jul-2004
 C:Accession: A24913, S35874, T48463, I48464, I59137, S35875
 R:Stempien, M.M.; Fong, N.M.; Rall, L.B.; Bell, G.I.

DNA 5, 357-361, 1986
 A:Title: Sequence of a placental cDNA encoding the mouse insulin-like growth factor II p
 A:Reference number: A24913; MWID:87053171; PMID:3780370
 A:Accession: A24913
 A:Molecule type: mRNA
 A:Residues: 1-180 <RES>
 A:Cross-references: UNIPARC:UPI0000020A45; GB:M14951; GB:J04069; GB:M206
 A:Accession: S35874
 A:Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-52 <HO2>
 A:Cross-references: UNIPARC:UPI00011613C; EMBL:X71921; NID:g393422; PIDN:CAA50737.1; PI
 R:Holhuizen, P.E.; Cleutjens, C.B.; Veenstra, G.J.; van der Lee, F.M.; Koonen-Reemst, A
 Regul. Pept. 48, 77-89, 1993
 A:Title: Differential expression of the human, mouse and rat IGF-II genes.
 A:Reference number: 148463; MWID:94089965; PMID:8265819
 A:Accession: 148463
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-52 <RES>
 A:Cross-references: UNIPARC:UPI000011613C; EMBL:X71921; NID:g393422; PIDN:CAA50737.1; PI
 A:Accession: 148464
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 103-180 <RES>
 A:Cross-references: UNIPARC:UPI000011613D; EMBL:X71922; NID:g393424; PIDN:CAA50738.1; PI
 R:Tollfein, S.E.; Sadow, J.L.; Rotwein, P.
 Proc. Natl. Acad. Sci. U.S.A. 86, 1543-1547, 1989
 A:Title: Coordinate expression of insulin-like growth factor II and its receptor during
 A:Reference number: 159137; MWID:89160812; PMID:2537977
 A:Accession: 159137
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-52 <RES>
 A:Cross-references: UNIPARC:UPI00011613C; GB:M24633; NID:g341211; PIDN:AAA37923.1; PID
 C:Genetics:
 A:Gene: IGF-2
 C:Superfamily: Insulin
 C:Keywords: growth factor

Query Match 96.2%; Score 177; DB 2; Length 180;
 Best Local Similarity 94.1%; Pred. No. 2e-18;
 Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPFRYPVGKFKFDTWRQSAQRL 34
 DB 93 DVSTQAVLPDDPFRYPVGKFKFDTWRQSAQRL 126

RESULT 3
 I57671
 insulin-like growth factor II - guinea pig
 C:Species: Cavia porcellus (guinea pig)
 C:Date: 02-Aug-1996 #sequence revision 02-Aug-1996 #text change 09-Jul-2004
 C:Accession: I57671
 R:Levinovitz, A.; Norstedt, G.; van den Berg, S.; Robinson, I.C.; Ekstrom, T.J.
 Mol. Cell. Endocrinol. 89, 105-110, 1992
 A:Title: Isolation of an insulin-like growth factor II cDNA from guinea pig liver: expr
 A:Reference number: 157671; MWID:93246007; PMID:1301379
 A:Accession: 157671
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 1-128 <RES>
 A:Cross-references: UNIPARC:UPI000012D408; GB:S59899; NID:g300070; PIDN
 C:Superfamily: Insulin

Query Match 80.4%; Score 148; DB 2; Length 128;
 Best Local Similarity 79.4%; Pred. No. 2.4e-14;
 Matches 27; Conservative 3; Mismatches 4; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPFRYPVGKFKFDTWRQSAQRL 34
 DB 93 DVSTQAVLPDDPFRYPVGKFKFDTWRQSAQRL 126

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RESULT 4
B60738
insulin-like growth factor II precursor - pig
C:Species: Sus scrofa domestica (domestic pig)
C>Date: 28-Apr-1993 #sequence_revision 30-Sep-1993 #text_change 13-Nov-1998
C:Accession: S12614; B60738
R:Catchpole, I.R.; Engstrom, W.
Nucleic Acids Res. 18, 6430, 1990
A:Title: Nucleotide sequence of a porcine insulin-like growth factor II cDNA.
A:Reference number: S12614; PMID:91057136; PMID:2243790
A:Accession: S12614
A:Molecule type: mRNA
A:Residues: 1-181 <CNT>
A:Cross-references: UNIPARC:UPI0000176673
R:Francis, G.L.; Owens, P.C.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.
J. Endocrinol. 122, 681-687, 1989
A:Title: Purification, amino acid sequences and assay cross-reactivities of porcine insu
A:Reference number: A60738; PMID:9003035; PMID:2809477
A:Accession: B60738
A:Molecule type: Protein
A:Residues: 25-79, 'X', 81-91 <FRA>
A:Cross-references: UNIPARC:UPI0000176674
C:Superfamily: Insulin
F:1-24/Domain: signal sequence #status predicted <SIG>
F:25-91/Product: insulin-like growth factor II #status experimental <MAT>
F:92-181/Domain: carboxyl-terminal propeptide (6 peptide) #status predicted <CTP>
F:33-71, 45-84, 70-75/Disulfide bonds: #status predicted

Query Match          79.9%; Score 147; DB 2; Length 181;
Best Local Similarity 76.5%; Pred. No. 5e-14;
Matches 26; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY      1 DVSTQAVLPDDPFRYPVGKFKFKDTWRQSGARL 34
          ||| ||| ||| ||| ||| ||| ||| ||| |||
          93 DVSTPPTVLPDNPFRYPVGKFKFRDTWKQSAQR 126

RESULT 5
IGHN2
insulin-like growth factor II precursor [validated] - human
N:Alternate names: somatomedin A
C:Species: Homo sapiens (man)
C>Date: 24-Apr-1984 #sequence_revision 15-Nov-1984 #text_change 09-Jul-2004
C:Accession: B23614; A93339; A28300; A30155; A93338; A91448; B60483; A33845; A61
R:de Pagter-Holthuisen, P.; van Schaik, F.M.A.; Verduijn, G.M.; van Ommen, G.J.B.; Bouma
FEBS Lett. 195, 179-184, 1986
A:Title: Organization of the human genes for insulin-like growth factors I and II.
A:Reference number: A91356; PMID:86108862; PMID:3002851
A:Accession: B23614
A:Molecule type: DNA
A:Residues: 1-180 <DEP>
A:Cross-references: UNIPROT:P01344; UNIPARC:UPI0000000965
R:Dull, T.J.; Gray, A.; Hayflick, J.S.; Ullrich, A.
Nature 310, 777-781, 1984
A:Title: Insulin-like growth factor II precursor gene organization in relation to insulin
A:Reference number: A93339; PMID:84295593; PMID:6382022
A:Accession: A93339
A:Molecule type: DNA
A:Residues: 1-180 <DUL>
A:Cross-references: UNIPARC:UPI0000000965; GB:M14118; NID:g183094; PIDN:AAA52535.1; PID:
R:Arminger, J.C.; Rosen, K.M.; Humbel, R.E.; Villal-Komaroff, L.
Proc. Natl. Acad. Sci. U.S.A. 84, 6330-6334, 1987
A:Title: Tissue-specific expression of insulin-like growth factor II mRNAs with distinct
A:Reference number: A28300; PMID:87317645; PMID:3476948
A:Accession: A28300
A:Molecule type: mRNA
A:Residues: 1-180 <IRM>
A:Cross-references: UNIPARC:UPI0000000965; GB:M17426; NID:g189954; PIDN:AAA60088.1; PID:
R:Shen, S.J.; Dameron, M.; Wang, C.Y.; Jansen, M.; Ilan, J.
Proc. Natl. Acad. Sci. U.S.A. 85, 1947-1951, 1988
A:Title: Isolation of an insulin-like growth factor II cDNA with a unique 5' untranslated

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A:Reference number: A30155; PMID:88158110; PMID:2450353
A:Accession: A30155
A:Molecule type: mRNA
A:Residues: 1-180 <SHE>
A:Cross-references: UNIPARC:UPI0000000965; GB:J03242; NID:g183123; PIDN:AAA52545.1; PID
R:Higihara, K.; Kobayashi, T.; Tobita, M.; Kikyo, N.; Yazaki, Y.; Okabe, T.
Jpn. J. Cancer Res. 86, 202-207, 1995
A:Title: Isolation of a cDNA for a growth factor of vascular endothelial cells from hum
A:Reference number: I56957; PMID:95247546; PMID:7730145
A:Accession: I56957
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-180 <HBG>
A:Cross-references: UNIPARC:UPI0000000965; GB:S77035; NID:g914191; PIDN:AAAB34155.1; PID
A:Experimental source: lung cancer cell line T3M-11
R:Ball, G.T.; Mettweather, J.P.; Sanchez-Pescador, R.; Stempien, M.M.; Priestley, L.;
Nature 310, 775-777, 1984
A:Title: Sequence of a cDNA clone encoding human preproinsulin-like growth factor II.
A:Reference number: A93338; PMID:84295592; PMID:6382021
A:Accession: A93338
A:Molecule type: mRNA
A:Residues: 1-180 <BEL>
A:Cross-references: UNIPARC:UPI0000000965; GB:X00910; GB:M17862; NID:g32995; PIDN:CAA25
R:Rinderknecht, E.; Humbel, R.E.
FEBS Lett. 89, 283-286, 1978
A:Title: Primary structure of human insulin-like growth factor II.
A:Reference number: A91448; PMID:78191259; PMID:658418
A:Accession: A91448
A:Molecule type: Protein
A:Residues: 25-91 <RIN>
A:Cross-references: UNIPARC:UPI000002CB81
R:Karey, K.P.; Marguard, H.; Sirbasku, D.A.
Blood 74, 1084-1092, 1989
A:Title: Human platelet-derived mitogens. Identification of insulinlike growth factors
A:Reference number: A60483; PMID:89333462; PMID:2752553
A:Accession: B60483
A:Molecule type: Protein
A:Residues: 25-32, 'X', 34-44 <KAR>
A:Cross-references: UNIPARC:UPI000017358A
A:Experimental source: platelet lysate
R:Smith, M.C.; Cook, J.A.; Furman, T.C.; Occolowicz, J.L.
J. Biol. Chem. 264, 9314-9321, 1989
A:Title: Structure and activity dependence of recombinant human insulin-like growth fac
A:Reference number: A33845; PMID:89255428; PMID:2722836
A:Accession: A33845
A:Molecule type: Protein
A:Residues: 25-91 <SMI>
A:Cross-references: UNIPARC:UPI000002CB81
R:Moehan, S.
Growth Factors 2, 267-271, 1990
A:Title: A simple and efficient scheme for the purification of insulin-like growth fact
A:Reference number: A61037; PMID:90248152; PMID:2337472
A:Accession: A61037
A:Molecule type: Protein
A:Residues: 25-32 <MOH>
A:Cross-references: UNIPARC:UPI000017358B
A:Note: this protein was purified from done, where it comprises 0.1 % of total protein
R:Uensen, M.; van Schaik, F.M.; van Tol, H.; Van den Brande, J.L.; Sussenbach, J.S.
FEBS Lett. 179, 243-246, 1985
A:Title: Nucleotide sequences of cDNAs encoding precursors of human insulin-like growth
A:Reference number: I53458; PMID:85102019; PMID:3881277
A:Accession: I53458
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-180 <RES>
A:Cross-references: UNIPARC:UPI0000000965; GB:M17862; NID:g32995; PIDN:CAA25426.1; PID:
A:Note: an alternatively spliced form was also found, in which 53-ser is replaced by Arg.
R:Ball, L.B.; Scott, J.; Bell, G.I.
Meth. Enzymol. 146, 239-248, 1987
A:Title: Human insulin-like growth factor I and II messenger RNA: isolation of compleme
A:Reference number: I57044; PMID:88065102; PMID:3683205
A:Accession: I57045
A:Status: preliminary; translated from GB/EMBL/DBJ

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A/Molecule type: mRNA
 A/Residues: 1-2, 'M', 4-180 <RES>
 A/Cross-references: UNIPARC:UPI000016A990; GB:M29645; NID:g183121; PIDN:AAA52544.1; PID:R.Gray, A.; Tam, A.W.; Dull, T.J.; Hayflick, J.; Pintar, J.; Cavenee, W.K.; Koulos, A.; DNA 6, 283-295, 1987
 A/Title: Tissue-specific and developmentally regulated transcription of the insulin-like A/Reference number: I52978; MWID:88003966; PMID:3652904
 A/Accession: I52978
 A/Status: translated from GB/EMBL/DBJ
 A/Molecule type: DNA
 A/Residues: 1-52 <RES2>
 A/Cross-references: UNIPARC:UPI000016A98E; GB:M22373; NID:g183100; PIDN:AAA52536.1; PID:C/Genetics:
 A/Gene: GDB:IGF2
 A/Cross-references: GDB:119331; OMIM:147470
 A/Map position: 11p15.5-11p15.5
 C/Suprafamily: Insulin
 C/Keywords: alternative splicing; angiogenesis; growth factor; monomer
 F:1-24/Domain: signal sequence #status predicted <SIG>
 F:25-91/Product: insulin-like growth factor II #status experimental <MAT>
 F:92-180/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
 F:33-71,45-84,70-75/Disulfide bonds: #status experimental

Query Match 77.2%; Score 142; DB 1; Length 180;
 Best Local Similarity 73.5%; Pred. No. 2,7e-13;
 Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRYVGVGKFKFDTWRQSGRL 34
 DB 93 DVSTPPTVLPDNPFRYPVGVGKFKFYDTWRKOSTQRL 126

RESULT 6
 167610
 insulin-like growth factor II, domains A-E - human
 C/Species: Homo sapiens (man)
 C/Date: 04-Oct-1996 #sequence, revision 04-Oct-1996 #text_change 16-Jul-1999
 C/Accession: 167610
 R.Janssen, M.; van Schaik, F.M.; van Tol, H.; Van den Brande, J.L.; Sussenbach, J.S.
 FEBS Lett. 179, 243-246, 1985
 A/Title: Nucleotide sequences of cDNAs encoding precursors of human insulin-like growth A/Reference number: I53458; MWID:85102019; PMID:3881277
 A/Accession: 167610
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: mRNA
 A/Residues: 1-183 <RES>
 A/Cross-references: UNIPARC:UPI000016A8B9; GB:M17863; NID:g182527; PIDN:AAA52443.1; PID:C/Genetics:
 A/Gene: GDB:IGF2
 A/Cross-references: GDB:119331; OMIM:147470
 A/Map position: 11p15.5-11p15.5
 C/Suprafamily: Insulin

Query Match 77.2%; Score 142; DB 2; Length 183;
 Best Local Similarity 73.5%; Pred. No. 2,7e-13;
 Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRYVGVGKFKFDTWRQSGRL 34
 DB 96 DVSTPPTVLPDNPFRYPVGVGKFKFYDTWRKOSTQRL 129

RESULT 7
 S02423
 insulin-like growth factor II precursor, splice form II - human
 N/Alternate names: somatomedin A
 C/Species: Homo sapiens (man)
 C/Date: 28-Feb-1990 #sequence, revision 28-Feb-1990 #text_change 09-Jul-2004
 C/Accession: S02423; S03383; A34439
 R.Je Bouc, Y.; Noguiez, P.; Sondermeijer, P.; Dreyer, D.; Girard, F.; Binoux, M.
 FEBS Lett. 222, 181-185, 1987
 A/Title: A new 5'-non-coding region for human placental insulin-like growth factor II mRNA/Reference number: S02423; MWID:88005137; PMID:3653397

A/Accession: S02423
 A/Status: not compared with conceptual translation
 A/Molecule type: mRNA
 A/Residues: 1-183 <LE1>
 A/Cross-references: UNIPROT:P01344; UNIPARC:UPI00002AB88; EMBL:Y00693
 A/Note: 53-Ser was also found instead of residues 53-56 (Arg-Leu-Pro-Gly)
 R.de Pagter-Holhuizen, P.; Jansen, M.; van der Kammen, R.A.; van Schaik, F.M.A.; Susser Biochim. Biophys. Acta 950, 282-295, 1998
 A/Title: Differential expression of the human insulin-like growth factor II gene. Chara A/Reference number: S03383; MWID:89000779; PMID:3167054
 A/Accession: S03383
 A/Status: translation not shown
 A/Molecule type: DNA
 A/Residues: 106-183 <DEP>
 A/Cross-references: UNIPARC:UPI000016AAE7; EMBL:X07868; NID:g32998; PIDN:CAA30717.1; PID:R.Hampton, B.; Burgess, W.H.; Marshak, D.R.; Cullen, K.V.; Perdue, J.F.
 J. Biol. Chem. 264, 19155-19160, 1989
 A/Title: Purification and characterization of an insulin-like growth factor II variant A/Reference number: A34439; MWID:90037048; PMID:2553732
 A/Accession: A34439
 A/Molecule type: protein
 A/Residues: 25-32, 'X', 34-44, 'X', 46-59 <HAM>
 A/Cross-references: UNIPARC:UPI0000176678
 C/Genetics:
 A/Gene: GDB:IGF2
 A/Cross-references: GDB:119331; OMIM:147470
 A/Map position: 11p15.5-11p15.5
 C/Suprafamily: Insulin
 C/Keywords: growth factor
 F:1-24/Domain: signal sequence #status predicted <SIG>
 F:25-94/Product: insulin-like growth factor II #status predicted <MAT>
 F:25-59/Domain: insulin chain B-like #status experimental <DOB>
 F:60-67/Domain: insulin connecting C peptide-like #status predicted <CEP>
 F:68-88/Domain: insulin chain A-like #status predicted <DOA>
 F:89-94/Domain: D peptide #status predicted <DOB>
 F:95-183/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
 F:33-74,45-87,73-78/Disulfide bonds: #status predicted

Query Match 77.2%; Score 142; DB 2; Length 183;
 Best Local Similarity 73.5%; Pred. No. 2,7e-13;
 Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRYVGVGKFKFDTWRQSGRL 34
 DB 96 DVSTPPTVLPDNPFRYPVGVGKFKFYDTWRKOSTQRL 129

RESULT 8
 S04858
 insulin-like growth factor II precursor - sheep
 C/Species: Ovis orientalis aries, Ovis aries (domestic sheep)
 C/Date: 07-Jun-1990 #sequence, revision 07-Jun-1990 #text_change 09-Jul-2004
 C/Accession: S04858; S10984; S20731; S04972; S32557; S32558; A61008; S08567
 R.O'Mahoney, J.V.; Adams, T.E.
 Nucleic Acids Res. 17, 5392, 1989
 A/Title: Nucleotide sequence of an ovine insulin-like growth factor-II cDNA.
 A/Reference number: S04858; MWID:89345107; PMID:2762134
 A/Accession: S04858
 A/Molecule type: mRNA
 A/Residues: 1-179 <OMA>
 A/Cross-references: UNIPROT:P10764; UNIPARC:UPI000012D40F; EMBL:X15248; NID:g1802; PIDN:R.Brown, W.M.; Diegelwetter, K.M.; Foreman, R.C.; Saunders, N.R.
 Nucleic Acids Res. 18, 4614, 1990
 A/Title: The nucleotide and deduced amino acid sequences of insulin-like growth factor A/Reference number: S10983; MWID:90356421; PMID:2388846
 A/Accession: S10984
 A/Molecule type: mRNA
 A/Residues: 1179 <BRO>
 A/Cross-references: UNIPARC:UPI000012D40F; EMBL:X53554; NID:g1262; PIDN:CAA37621.1; PID:R.Ohlson, S.M.; Wong, E.A.
 Submitted to the EMBL Data Library, September 1990
 A/Reference number: S20731
 A/Accession: S20731

A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-179 <OH>
A:Cross-references: UNIPARC:UPI000012D40F; EMBL:X56538; NID:g1266; PIDN:CAA39163.1; PID:R.Hey, A.W.; Browne, C.A.; Simpson, R.J.; Thorburn, G.D.
Biotech. Biophys. Acta 997, 27-35, 1989
A>Title: Simultaneous isolation of insulin-like growth factors I and II from adult sheep
A:Reference number: S04972; MUID:89323215; PMID:2752053
A:Accession: S04972
A:Molecule type: protein
A:Residues: 25-58 <HE>
A:Cross-references: UNIPARC:UPI0000176675
R.Demmer, J.; Hill, D.F.; Petersen, G.B.
Biochim. Biophys. Acta 1173, 79-80, 1993
A>Title: Characterization of two sheep insulin-like growth factor II cDNAs with different
A:Reference number: S32557; MUID:93250051; PMID:8485157
A:Accession: S32557
A>Status: nucleic acid sequence not shown; translation not shown
A:Molecule type: mRNA
A:Residues: 1-179 <DEM>
A:Cross-references: UNIPARC:UPI000012D40F; EMBL:M89788; NID:g165940; PIDN:AAA31548.1; PID:A.Nice: the nucleotide sequence was submitted to the EMBL Data Library, March 1992
A:Accession: S32558
A>Status: preliminary; nucleic acid sequence not shown; translation not shown
A:Molecule type: mRNA
A:Residues: 1-120 <DB2>
A:Cross-references: UNIPARC:UPI000016C4C4; EMBL:M89789; NID:g165942; PIDN:AAA31549.1; PID:A.Nice: the nucleotide sequence was submitted to the EMBL Data Library, March 1992
R.Straczek, J.; Hellin, M.H.; Chent, A.M.; Belleville, F.; Nabet, P.; Denoroy, L.; Bardot, J.
Chromatogr. 533, 35-46, 1990
A>Title: Application of preparative high-performance liquid chromatography to the purification of
A:Reference number: A61008; MUID:91185520; PMID:2081780
A:Accession: A61008
A:Molecule type: protein
A:Residues: 25-32, 'X', 34-44, 'X', 46-55, 'X', 57, 'X', 59-60 <STR>
A:Cross-references: UNIPARC:UPI0000176676
A:Experimental source: fetal serum
R.Francis, G.L.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.; Owens, P.C.
Endocrinology 124, 1173-1183, 1989
A>Title: Sheep insulin-like growth factors I and II: sequences, activities and assays.
A:Reference number: S07198; MUID:89136887; PMID:2537174
A:Accession: S08567
A:Molecule type: protein
A:Residues: 25-45, 'DG', 48-91 <PRA>
A:Cross-references: UNIPARC:UPI0000176677
A:Experimental source: fetal serum
C:Superfamily: insulin
C:Keywords: growth factor; plasma
F.1-24/Domain: signal sequence #status predicted <SIG>
F.25-91/Product: insulin-like growth factor II #status experimental <MAT>
F.25-52/Domain: insulin chain B-like #status predicted <DOB>
F.53-64/Domain: insulin connecting peptide-like #status predicted <CHC>
F.65-85/Domain: insulin chain A-like #status predicted <DOA>
F.86-91/Domain: D peptide #status predicted <CHD>
F.92-179/Domain: carboxy-terminal propeptide (B peptide) #status predicted <CPR>
F.33-71, 45-84, 70-75/Disulfide bonds: #status predicted

Query Match 69.6% Score 128; DB 2; Length 179;
Best Local Similarity 70.6%; Pred.No.3e-11;
Matches 24; Conservative 2; Mismatches 8; Indels 0; Gaps 0;

RESULT 9
IGSB2
insulin-like growth factor II precursor - bovine
N.Alternate names: IGF-II
C.Species: Bos primigenius taurus (cattle)
C.Date: 31-Mar-1988 #sequence revision 22-Apr-1995 #text_change 09-Jul-2004

1 DVSTSOAVLPDDPPRYPVGKFFKPDTMRQSGRL 34
||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 93 DVSASTYVLPDDFTAYVPVGKFPQSDTMRQSGRL 126

C.Accession: S10983; S37617; B25623; A34645; S00466; A57470
R.Brown, W.M.; Dzieglowska, K.M.; Foreman, R.C.; Saunders, N.R.
Nucleic Acids Res. 19, 4614, 1990
A.Title: The nucleotide and deduced amino acid sequences of insulin-like growth factor
A.Reference number: S10983; MUID:90356421; PMID:2388846
A.Accession: S10983
A.Molecule type: mRNA
A.Residues: 6-155 <BR2>
A.Cross-references: UNIPROT: P07456; UNIPARC: UP1000016C328; EMBL: X53553; NID: g459; PIDN:
A.Experimental source: liver
R.Congote, L.F.; Mazza, L.; Palfree, R.G.E.
Comp. Biochem. Physiol. B 103, 127-131, 1992
A.Title: Nucleotide sequence of the central coding region of bovine erythropoietin/insulin
time of hepatic erythropoiesis.
A.Reference number: S37617; MUID: 93083057; PMID:1280544
A.Accession: S37617
A.Molecule type: mRNA
A.Residues: 6-62 <CON>
A.Cross-references: UNIPARC: UP1000016C329; EMBL: X53667; NID: g461; PIDN: CAA37861.1; PID:
A.Experimental source: fetal intestine
R.Honegger, A.; Humbel, R.E.
J. Biol. Chem. 261, 569-575, 1986
A.Title: Insulin-like growth factors I and II in fetal and adult bovine serum. Purifica
A.Reference number: A92585; MUID: 86085881; PMID:3941093
A.Accession: B25623
A.Molecule type: protein
A.Residues: 1-34, 'S', 36-67 <HON>
A.Cross-references: UNIPARC: UP1000017358C
R.Li, Q.; Blachet, R.; Bsch, F.; Congote, L.F.
Biochem. Biophys. Res. Commun. 166, 557-561, 1990
A.Title: A heparin-binding erythroid cell stimulating factor from fetal bovine serum has
A.Reference number: A34645; MUID: 90147754; PMID:2302223
A.Accession: A34645
A.Molecule type: protein
A.Residues: 1-8, 'X', 10-20, 'X', 22-31 <LIO>
A.Cross-references: UNIPARC: UP1000017358D
R.Francis, G.L.; Upton, F.M.; Ballard, F.J.; McNeil, K.A.; Wallace, J.C.
Biochem. J. 251, 95-103, 1988
A.Title: Insulin-like growth factors 1 and 2 in bovine colostrum. Sequences and biologi
A.Reference number: S00465; MUID: 88268820; PMID:3390164
A.Accession: S00465
A.Molecule type: protein
A.Residues: 1-67 <FRA>
A.Cross-references: UNIPARC: UP10000141BC9
R.Valenzano, K.J.; Remmler, J.; Lobel, P.
J. Biol. Chem. 270, 16441-16448, 1995
A.Title: Soluble insulin-like growth factor II/mammos 6-phosphate receptor carries mul
A.Reference number: A57470; MUID: 95332360; PMID:7608216
A.Accession: A57470
A.Molecule type: protein
A.Status: preliminary
A.Molecule type: protein
A.Residues: 1-5 <VAL>
A.Cross-references: UNIPARC: UP1000017358E
C.Keywords: colostrum; growth factor; heparin binding; mitogen; plasma
F.1-67/Product: insulin-like growth factor II #status experimental <MAT>
F.1-27/Domain: insulin B chain-like #status experimental <DOB>
F.28-40/Domain: insulin connecting C peptide-like #status experimental <CPB>
F.41-61/Domain: insulin A chain-like #status experimental <DOA>
F.62-67/Domain: D peptide #status experimental <CHD>
F.68-155/Domain: carboxyl-terminal propeptide (B peptide) #status predicted <CHB>
F.9-47, 21-60, 46-51/Diulfide bonds: #status predicted

```

Query Match: 65.2%; Score 120; DB 1; length 155;
Best Local Similarity 64.7%; Pred.No. 3.9e-10;
Matches 22; Conservative 3; Mismatches 9; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDPRPYGVGKFEKEDPTROSAGRL 34
      ||| ||| ||| ||| ||| ||| ||| |||
Db      69 DVSASTVLPDDVTATPYGVKFEFGYDIRKQSGRL 102

RESULT 10

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153642      Insulin-like growth factor II precursor - horse (fragment)
C|Species: Equus caballus (domestic horse)
C|Date: 15-Oct-1996 #sequence_revision 15-Oct-1996 #text_change 09-Jul-2004
C|Accession: I53642
R|Otte, K.; Engstrom, W.
Gen. Comp. Endocrinol. 96, 270-275, 1994
A>Title: Insulin-like growth factor II in the horse: determination of a cDNA nucleotide
A|Reference number: I53642; MUID:95154655; PMID:7851727
A|Accession: I53642
A>Status: preliminary; translated from GB/EMBL/DDBJ
A|Molecule type: mRNA
A|Residues: 1-93 <OTT>
A|Cross-references: UNIPROT:P51459; UNIPARC:UPI000016C420; EMBL:U11241; NID:g508703; PID
C|Genetics:
A|Gene: IGF-II
C|Superfamily: insulin

Query Match          49.5%; Score 91; DB 2; Length 93;
Best Local Similarity 68.0%; Pred. No. 4e+06;
Matches 17; Conservative 3; Mismatches 5; Indels 0; Gaps 0;

QY       1 DVTSQAVLPDDPRYPVGVKFFPKED    25
           ||||| |||||| |:::
DB        69 DVTPTTVPDPSPRYPVGKRFGYN   93

RESULT 11
S56868
probable membrane protein YJL091c - yeast (Saccharomyces cerevisiae)
N|Alternate names: hypothetical protein J091c
C|Species: Saccharomycetes cerevisiae
C|Date: 05-May-1995 #sequence_revision 08-Sep-1995 #text_change 09-Jul-2004
C|Accession: S56868; S56016
R|Miooga, T.; Schaaff-Gerstenchlaeger, L.; Baur, A.; Boles, E.; Chaiwatzis, N.; Fournie
submitted to the Protein Sequence Database, September 1995
A|Reference number: S56855
A|Molecule type: DNA
A|Residues: 1-498 <MIO>
A|Cross-references: UNIPROT:P47026; UNIPARC:UPI000013B5C2; EMBL:Z49366; NID:g1008261; PTD
R|Miooga, T.; Schaaff-Gerstenchlaeger, L.; Chaiwatzis, N.; Baur, A.; Boles, E.; Fournie
Yeast 11, 681-689, 1995
A>Title: Sequence analysis of a 33.1 kb fragment from the left arm of Saccharomyces cere
ter domain and a putative alpha-2-SCB-alpha-2 binding site.
A|Reference number: S56016; MUID:96093911; PMID:7483841
A|Accession: S56016
A>Status: nucleic acid sequence not shown; translation not shown
A|Molecule type: DNA
A|Residues: 1-473 <MIW>
A|Cross-references: UNIPARC:UPI00001798E9; EMBL:X83502
A>Note: The nucleotide sequence was submitted to the EMBL Data Library, December 1994
C|Genetics:
A|Cross-references: SGD:S0003627
A|Map position: 10L
C|Keywords: transmembrane protein

Query Match          29.1%; Score 53.5; DB 2; Length 498;
Best Local Similarity 41.4%; Pred. NO. 8.1;
Matches 12; Conservative 6; Mismatches 10; Indels 1; Gaps 1;

QY               2 VSTRSQAVLPDDPRYPVGKFFKFDTRWS    30
                   :|:::|| |||| ::|||::|
DB              143 ILTAIALNVDFPIFP-RRFPAKVETWTGS  170

RESULT 12
T31352
hypothetical protein - Pelargonium x hortorum
C|Species: Pelargonium x hortorum
C|Date: 02-Sep-2000 #sequence_revision 02-Sep-2000 #text_change 31-Dec-2004
C|Accession: T31352
R'Downie, S.R.; Katz-Downie, D.S.; Wolfe, K.H.; Calle, P.J.; Palmer, J.D.
```

```

Curr. Genet. 25:367-378, 1994
A>Title: Structure and evolution of the largest chloroplast gene (ORF2280) : internal p1
A|Reference number: Z21012; M0ID:94363755; PMID:8082181
A|Accession: T31352
A|Status: preliminary; translated from GB/EMBL/DBJ
A|Molecule type: DNA
A|Residues: 1-2109 <DOW>
A|Cross-references: UNIPROT:Q32836; UNIPARC:UPI0000090BFB; EMBL:M83200; NID:g468913; PIR
C|Superfamily: Protein ycf2

Query Match
Best Local Similarity 28.5%; Score 52.5; DB 2; Length 2109;
Matches 12; Conservative 4; Mismatches 6; Indels 5; Gaps 1;

OY 5 SQAVLPDDFP----RYPVGKFFKFPDT 26
|:::|||||
DB 790 SKLIPDDFPQSGDERYNLCKSFHFP 816

RESULT 13
566977
hypothetical protein YOR092w - yeast (Saccharomyces cerevisiae)
N|Alternate names: hypothetical protein O3165; hypothetical protein YOR3165w
C|Species: Saccharomyces cerevisiae
C|Date: 12-Jul-1996 #sequence_revision 12-Jul-1996 #text_change 09-Jul-2004
A|Accession: S66977; S61653
R|Voss, H.; Benes, V.; Teodoru, C.; Schwager, C.; Paces, V.; Ansoerge, W.
submitted to the Protein Sequence Database, July 1996
A|Reference number: S66965
A|Accession: S66977
A|Molecule type: DNA
A|Residues: 1-613 <VOS>
A|Cross-references: UNIPROT:Q92925; UNIPARC:UPI000006A4B1; EMBL:Z75000; NID:g1420262; PIR
A|Experimental source: strain S288C
R|Benes, V.; Andrade, M.A.; Reichmann, S.; Teodoru, C.; Banrevi, A.; Sander, C.; Valencic
A|Description: Nucleotide sequence and analysis of a 130 kb fragment of yeast chromosome
A|Reference number: S61643
A|Accession: S61653
A|Molecule type: DNA
A|Residues: 1-485 'SV' <BEN>
A|Cross-references: UNIPARC:UPI00001797B; EMBL:X94335
C|Genetics:
A|Gene: SGD:ECM3
A|Cross-references: SGD:S0005618; MIPS:YOR092w
A|Map position: 15R

Query Match
Best Local Similarity 28.3%; Score 52; DB 2; Length 613;
Matches 10; Conservative 5; Mismatches 9; Indels 0; Gaps 0;

OY 1 DVSTQAVLPDDPFRYPVGKFFK 24
|:::|||||
DB 398 DIETSGSLPKWLQKFFLTKEFVF 421

RESULT 14
564405
methyl coenzyme M reductase (EC 1.8.-.-) I alpha chain - Methanococcus jannaschii
C|Species: Methanococcus jannaschii
C|Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 05-Oct-2004
A|Accession: F64405
R|Bult, C.J.; White, O.; Olsen, G.J.; Zhou, L.; Fleischmann, R.D.; Sutton, G.G.; Blake,
A.; Aulic; Kaine, B.P.; Borodovsky, M.; Klenk, H.P.; Fraser, C.M.; Smith, H.O.; Woese, C.
Science 273, 1058-1073, 1996
R|Reich, C.J.; Overbeek, R.; Kirkness, E.F.; Weinstock, K.G.; Merrick, J.M.; Glodek, A.
et al. J.D.; Sadow, P.W.; Hanna, M.C.; Cotton, M.D.; Roberts, K.M.; Hurst, M.A.
Science 273, 1058-1073, 1996
A|Accession: F64405
A|Reference number: A64300; M0ID:96337999; PMID:8688087
A|Status: preliminary; nucleic acid sequence not shown; translation not shown
A|Molecule type: DNA
A|Residues: 1-556 <BUL>

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A:Cross-references: UNIPARC:UPI0000175147; GB:U67529; GB:L77117; NID:g1591532; PID:g1592
 C:Genetics:
 A:Map position: FOR771816-773486
 A:Start codon: GTG
 C:Keywords: metalloprotein; methanogenesis; oxidoreductase
 F:153/Binding site: coenzyme F430 nickel (Gln) (axial ligand) #status predicted
 F:338/Active site: Tyr #status predicted
 F:450/Binding site: coenzyme M (Tyr) #status predicted
 F:487/Binding site: coenzyme B (Asn) #status predicted

Query Match 27.7%; Score 51; DB 2; Length 556;
 Best Local Similarity 47.6%; Pred. No. 21;
 Matches 10; Conservative 3; Mismatches 8; Indels 0; Gaps 0;

QY 11 DDFPRYPVGKFFKFDTWQSA 31
 DB 20 EEDPREKTKFYVFGWQSA 40

RESULT 15

G86231
 hypothetical protein [imported] - Arabidopsis thaliana
 C:Species: Arabidopsis thaliana (mouse-ear cress)
 C:Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 27-Oct-2003
 C:Accession: G86231

R:Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso,
 Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.;
 ansen, N.F.; Hughes, B.; Huizar, L.
 Nature 408, 816-820, 2000

A:Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.
 C.A.; Li, J.H.; Li, Y.; Lih, X.; Liu, S.X.; Liu, Z.A.; Lueros, J.S.; Maiti, R.; Marziani,
 Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.; Schatz, J.R.; Shin, P.; Southwick, A.M.; Sun, H.; Tallon,
 A:Authors: Salzberg, S.L.; Schwartz, J.R.; Shim, P.; Southwick, A.M.; Sun, H.; Tallon,
 Ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.

A:Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.

A:Reference number: A86141; MUID:21016719; PMID:11130712

A:Accession: G86231

A>Status: preliminary

A:Molecule type: DNA

A:Residues: 1-575 <STO>

A:Cross-references: UNIPARC:UPI000016DA6B; GB:AE005172; NID:g2160168; PIDN:AA60731.1; G

C:Genetics:

A:Map position: 1

C:Superfamily: cofactor-independent phosphoglycerate mutase

Query Match 27.4%; Score 50.5; DB 2; Length 575;
 Best Local Similarity 39.4%; Pred. No. 26;
 Matches 13; Conservative 4; Mismatches 13; Indels 3; Gaps 1;

QY 2 VSTSQAVLPDDPRYPVGK--FFKFDTWQSA 31
 DB 1 MATSSAMKLDHHPKLPKGTIAIVLDWGESA 33

Search completed: May 21, 2006, 12:46:50
 Job time : 22.6667 secs

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GenCore version 5.1.8
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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:31:30 ; Search time 162.333 Seconds

(Without alignments)
193.740 Million cell updates/sec

Title: US-10-632-366-2

Perfect score: 184

Sequence: 1 DVSTSQAVLPDDPPRYVGVKFKFDTRQSAAGRL 34

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2849598 seqs, 925015592 residues

Total number of hits satisfying chosen parameters: 2849598

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

1: uniprot_sprot:*

2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	184	100.0	154	2	063265_RAT
2	184	100.0	180	1	IGF2_RAT
3	177	96.2	180	1	IGF2_MOUSE
4	177	96.2	180	2	Q2IDG5_MUSSE
5	177	96.2	191	2	Q2IDG7_MUSSE
6	148	80.4	128	1	IGF2_CAVPO
7	147	79.9	181	1	IGF2_PIG
8	146	79.3	129	1	IGF2_MUSVI
9	142	77.2	180	1	IGF2_HUMAN
10	140	76.1	123	2	Q8MJ15_PIG
11	137	74.5	78	2	Q5WT77_RAT
12	138	69.6	179	1	IGF2_SHEEP
13	128	69.6	184	2	Q673F2_DIDMA
14	121	65.8	106	2	Q9MYZ6_TRITU
15	120	65.2	104	2	Q862E7_BOVIN
16	120	65.2	113	2	Q9N1S5_CAPCA
17	120	65.2	141	2	Q862G1_BOVIN
18	120	65.2	149	2	Q9MYX4_BOVIN
19	120	65.2	155	1	IGF2_BOVIN
20	114	62.0	115	2	Q5Q0X5_EQUUS
21	114	62.0	181	1	IGF2_HORSE
22	91	49.5	62	2	Q9XS88_HORSE
23	90	48.9	57	2	Q28237_CEREL
24	56.5	30.7	151	2	Q9N171_ORNAN
25	56.5	30.7	239	2	Q673F3_ORNAN
26	55.5	30.2	122	2	Q8MNP3_SWAMM
27	55.5	30.2	446	2	Q6CK18_KLULA
28	55.5	30.2	951	2	Q7ZTD6_GGALL
29	55	29.9	624	2	Q4BDX2_BURVI
30	54.5	29.6	485	1	GWT1_CANAL
31	54.5	29.6	485	2	Q59T33_CANAL

32	54.5	29.6	539	2	Q7S413_NEUCR	Q7S413 neurospora
33	54.5	29.6	952	2	Q9NH28_HRLPN	Q9NH28 helioverpa
34	54	29.3	298	2	Q5ML10_BACBK	Q5ML10 bacillus cl
35	54	29.3	358	2	Q4QTM8_KLEBN	Q4QTM8 klebsiella
36	54	29.3	930	2	Q45Y14_GVIRU	Q45Y14 burkholderi
37	54	29.3	930	2	Q63Y08_BURPS	Q63Y08 burkholderi
38	54	29.3	1526	2	Q6CYV1_ERWCT	Q6CYV1 erwinia car
39	54	29.3	4331	2	Q4IYL2_AZOVI	Q4IYL2 azotobacter
40	53.5	29.1	125	2	Q2IV82_GDELT	Q2IV82 syntrophus
41	53.5	29.1	458	1	GWT1_YEAST	P47026 saccharomyc
42	53.5	29.1	2380	2	Q7QYF6_GIALA	Q7QYF6 giardia lam
43	53	28.8	153	2	Q4RKC2_TETIG	Q4RKC2 tetradodon n
44	53	28.8	200	2	Q5AXY7_EMENT	Q5AXY7 aspergillus
45	53	28.8	307	2	Q3V9Y8_GSPHN	Q3V9Y8 sphingopyxi

ALIGNMENTS:

```

RESULT 1
ID 063265_RAT PRELIMINARY; PRT; 154 AA.
AC 063265;
DT 01-NOV-1996, integrated into UniProtKB/TrEMBL.
DT 01-NOV-1996, sequence version 1.
DT 07-FEB-2006, entry version 29.
DE Rat insulin-like growth factor II (Fragment).
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN 1;
RP NUCLEOTIDE SEQUENCE.
RA Reicher M.M., Bruni C.B., Whitfield H.J., Yang Y.W.-H., Frunzio R.,
RA Graham D.E., Coligan J.E., Terrell J.E., Acquaviva A.M., Miesley S.P.;
RT "Characterization of the biosynthetic precursor for rat insulin-like
RT growth factor II by biosynthetic labeling, radiosequencing, and
RT nucleotide sequence analysis of a cDNA clone."
RL Cancer Cells 3:131-138 (1985).
CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -1- SIMILARITY: Belongs to the insulin family.
CC
CC
CC Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
CC Distributed under the Creative Commons Attribution-NonDerivs License
CC
CC EMBL; M38688; AAA41433.1; -; mRNA.
DR HSSP; P01344; 1IGL.
DR SMR; 063265; 1-65.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007582; P:physiological process; IEA.
DR InterPro; IPR004825; Ins/IGF/relax.
DR InterPro; IPR003234; Insulin-like.
DR Pfam; PF00049; Insulin; 1.
DR PRINTS; PR00277; INSULINB.
DR PRODOM; PD015667; Mollusc; 1.
DR SMART; SM00078; IIGF; 1.
DR PROSITE; PS00262; INSULIN; 1.
FT NON TER 1
SQ
SEQUENCE 154 AA; 17376 MW; 2AD45125EFA8615E CRC64;

Query Match 100.0%; Score 184; DB 2; Length 154;
Best Local Similarity 100.0%; Pred. No. 1.7e-18;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 DVSTSQAVLPDDPPRYVGVKFKFDTRQSAAGRL 34
DB 67 DVSTSQAVLPDDPPRYVGVKFKFDTRQSAAGRL 100

RESULT 2
IGF2_RAT

```

ID IGF2_RAT STANDARD; PRT; 180 AA.
AC P01346;
DT 21-JUL-1986, integrated into UniProtKB/Swiss-Prot.
DT 20-MAR-1987, sequence version 1.
DT 07-FEB-2006, entry version 59.
DE Insulin-like growth factor II precursor (IGF-II) (Multiplication-stimulating polypeptide) (Multiplication-stimulating activity) (MSA).
GN Name=IGF2; Synonyms=IGF-2;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi; OC Muridae; Muridae; Murinae; Rattus.
OC NCBI_TaxID=10116;
RN (1)
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=BRL-3A;
RX MEDLINE=84295593; PubMed=6382022;
RT Dull T.J., Gray A., Hayflick J.S., Ulrich A.;
RT "Insulin-like growth factor II precursor gene organization in relation to insulin gene family.";
RL Nature 310:777-781(1984).
RN (2)
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Bufef153;
RX MEDLINE=85215534; PubMed=3889836;
RX Soares M.B., Ishii D.N., Efstratiadis A.;
RT "Developmental and tissue-specific expression of a family of transcripts related to rat insulin-like growth factor II mRNA.";
RL Nucleic Acids Res. 13:1119-1134(1985).
RN (3)
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=8722616; PubMed=2438416;
RX Soares M.B., Turken A., Ishii D.N., Mills L., Episkopou V., Cotter S., Zeitlin S., Efstratiadis A.;
RT "Rat insulin-like growth factor II gene. A single gene with two promoters expressing a multitranscript family.";
RL J. Mol. Biol. 192:737-752(1986).
RN (4)
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=87057436; PubMed=3023383;
RX Franzio R., Chiarlotti L., Brown A.L., Graham D.E., Rechler M.M., Bruni C.B.;
RT "Structure and expression of the rat insulin-like growth factor II (rIGF-II) gene. rIGF-II RNAs are transcribed from two promoters.";
RL J. Biol. Chem. 261:17138-17149(1986).
RN (5)
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=89000793; PubMed=3167060; DOI=10.1016/0167-4781(89)90138-8;
RX Ueno T., Takahashi K., Matsuguchi T., Endo H., Yamamoto M.;
RT "Transcriptional deviation of the rat insulin-like growth factor II gene initiated at three alternative leader-exons between neonatal tissues and ascites hepatomas.";
RL Biochim. Biophys. Acta 950:411-419(1988).
RN (6)
RP NUCLEOTIDE SEQUENCE OF 62-180.
RX MEDLINE=85061532; PubMed=6390212;
RX Whitfield H.J., Bruni C.B., Franzio R., Terrell J.E., Nissley S.P., Rechler M.M.;
RT "Isolation of a cDNA clone encoding rat insulin-like growth factor-II precursor.";
RL Nature 312:277-280(1984).
RN (7)
RP NUCLEOTIDE SEQUENCE OF 103-180.
RX MEDLINE=89127259; PubMed=3221878;
RX Chiarlotti L., Brown A.L., Franzio R., Clemmons D.R., Rechler M.M., Bruni C.B.;
RT "Structure of the rat insulin-like growth factor II transcriptional unit: heterogeneous transcripts are generated from two promoters by use of multiple polyadenylation sites and differential ribonucleic acid splicing.";
RL Mol. Endocrinol. 2:1115-1126(1988).
RN (8)
RP PROTEIN SEQUENCE OF 25-91.

RX MEDLINE=81215670; PubMed=7016879;
RA Marguier H., Todaro G.U., Henderson I.E., Orcoslan S.;
RT "Purification and primary structure of a polypeptide with multiplication-stimulating activity from rat liver cell cultures.
RT Homology with human insulin-like growth factor II.";
RL J. Biol. Chem. 256:6859-6865(1981).
CC -1- FUNCTION: The insulin-like growth factors possess growth-promoting activity. In vitro, they are potent mitogens for cultured cells.
CC IGF-II is influenced by placental lactogen and may play a role in fetal development.
CC -1- SUBCELLULAR LOCATION: Secreted protein.
CC -1- SIMILARITY: Belongs to the insulin family.
CC -----
CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>
CC Distributed under the Creative Commons Attribution-NonDerivs license
CC -----
DR EMBL; X00911; CAA25428.1; -; mRNA.
DR EMBL; X00911; CAA25429.1; ALT_INIT; mRNA.
DR EMBL; M13871; AAB95624.1; ALT_INIT; Genomic DNA.
DR EMBL; M13870; AAB95624.1; JOINED; Genomic DNA.
DR EMBL; M29880; AAA41391.1; -; Genomic DNA.
DR EMBL; M29879; AAA41391.1; JOINED; Genomic DNA.
DR EMBL; X02213; CAA26136.1; -; mRNA.
DR EMBL; X13101; CAA31493.1; -; mRNA.
DR EMBL; X14833; CAA32942.1; -; mRNA.
DR EMBL; X14834; CAA32943.1; -; mRNA.
DR EMBL; M30273; AAA41432.1; -; mRNA.
DR EMBL; M31221; AAA42046.1; -; Genomic DNA.
DR PIR; A25350; IGRF2.
DR HSSP; P01344; IIGF.
DR SMR; P01346; 25-91.
DR EMBL; ENSRNOG0000020369; Rattus norvegicus.
DR RGD; 2870; IGF2.
DR InterPro; IPR004824; Bombyxin.
DR InterPro; IPR004825; Ins/IGF/relax.
DR Pfam; PF00049; Insulin; 1.
DR PRINTS; PR00277; INSULIN.
DR PRODOM; PD001048; Bombyxin; 1.
DR SMART; SM00078; IIGF; 1.
DR PROSITE; PS00262; INSULIN; 1.
KW Direct protein sequencing; Growth factor; Mitogen; Signal.
FT CHAIN 1 24 Insulin-like growth factor II.
FT 25 91 E peptide.
FT 92 180 /FTID=PRO_0000015729.
FT 180 PROPSP
FT REGION 25 52 B.
FT REGION 53 64 C.
FT REGION 65 85 A.
FT REGION 86 91 D.
FT DISULFID 33 71 By similarity.
FT DISULFID 45 84 By similarity.
FT DISULFID 70 75 By similarity.
FT CONFLICT 1 8 Missing (in Ref. 2).
FT CONFLICT 57 57 S -> G (in Ref. 3).
SQ SEQUENCE 180 AA; 20086 MW; AF12B4EBCDC34 CRC64;
Query Match 100.0%; Score 184; DB 1; Length 180;
Best Local Similarity 100.0%; Pred. No. 2e-18; Mismatches 0;
Matches 34; Conservative 0; Indels 0; Gaps 0;
Qy 1 DVSTSQAVLPDDFPRYPVGKFFKFTWRSAGRL 34
Db 93 DVSTSQAVLPDDFPRYPVGKFFKFTWRSAGRL 126
RESULT 3
ID IGF2_MOUSE STANDARD; PRT; 180 AA.
AC P09535;
DT 01-JUL-1989, integrated into UniProtKB/Swiss-Prot.

DT 01-JUL-1989, sequence version 1.
 DT 07-FEB-2006, entry version 57.
 DE Insulin-like growth factor II precursor (multiplication-stimulating
 DE polypeptide) (IGF-II).
 GN Name=Igf2; Synonyms=Igf-2;
 OS Mus musculus (mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Muridae; Murinae; Mus.
 NCBI_TaxId=10090;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=8705317; PubMed=3780370;
 RA Stempien M.M., Fong N.M., Rall L.B., Bell G.I.;
 RT "Sequence of a placental cDNA encoding the mouse insulin-like growth
 RT factor II precursor.";
 RL DNA 5:357-361(1986).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=91090843; PubMed=1702294;
 RA Rotwein P., Hall L.J.;
 RT "Evolution of insulin-like growth factor II: characterization of the
 RT mouse IGF-II gene and identification of two pseudo-exons.";
 RL DNA Cell Biol. 9:725-735(1990).
 RN [3]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=97181545; PubMed=9039503; DOI=10.1093/dnares/3.5.331;
 RA Sasaki H., Shinozaki K., Zubair M., Aoki N., Hatanu N., Moore T.,
 RA Feil R., Constancia M., Reik W., Rotwein P.;
 RT "Nucleotide sequence of a 28-kb mouse genomic region comprising the
 RT imprinted Igf2 gene.";
 RL DNA Res. 3:331-335(1996).
 RN [4]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
 RX STRAIN=C57BL/6J; TISSUE=Embryo;
 MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Ustin T.B., Toshiyuki S., Carninci P., Prange C.J.,
 RA Raha S.S., Loughellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
 RA Bosak S.A., Mcwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S.K., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butlerfield Y.S.N., Krzywinski M.I., Skalska U., Smallus D.E.,
 RA Scherch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [5]
 RP NUCLEOTIDE SEQUENCE OF 1-52.
 RX MEDLINE=89160812; PubMed=2537977;
 RA Tollefsen S.E., Sadow J.L., Rotwein P.;
 RT "Coordinate expression of insulin-like growth factor II and its
 RT receptor during muscle differentiation.";
 RL Proc. Natl. Acad. Sci. U.S.A. 86:1543-1547(1989).
 RN [6]
 RP NUCLEOTIDE SEQUENCE OF 1-52 AND 103-180.
 RX STRAIN=BLB/C; TISSUE=Spleen;
 MEDLINE=94089965; PubMed=8265819; DOI=10.1016/0167-0115(93)90337-8;
 RA Holtkamp P.E., Cleutjens C.B., Vennstra G.J., van der Lee F.M.,
 RA Koonen-Reemst A.M., Sussenbach J.S.;
 RT "Differential expression of the human, mouse and rat IGF-II genes.";
 RL Regul. Pept. 48:77-89(1993).
 CC -1- FUNCTION: The insulin-like growth factors possess growth-promoting
 CC activity. In vitro, they are potent mitogens for cultured cells.

CC IGF-II is influenced by placental lactogen and may play a role in
 CC fetal development.
 CC -1- SUBCELLULAR LOCATION: Secreted protein.
 CC -1- DEVELOPMENTAL STAGE: Low levels of expression during myoblast
 CC proliferation. Levels rise rapidly during myoblast differentiation
 CC and then decrease.
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC
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 CC
 CC EMBL: M14951; AAA37683.1; -; mRNA.
 CC EMBL: M36332; AAA37926.1; -; JOINED; Genomic_DNA.
 CC EMBL: M35331; AAA37926.1; -; JOINED; Genomic_DNA.
 CC EMBL: U71085; AAC3516.1; -; Genomic_DNA.
 CC EMBL: BC053489; AAH53489.1; -; mRNA.
 CC EMBL: M24633; AAA37923.1; -; Genomic_DNA.
 CC EMBL: X71921; CAA50737.1; -; Genomic_DNA.
 CC EMBL: X71922; CAA50738.1; -; Genomic_DNA.
 CC PIR: A24913; A24913.
 CC HSSP: P01344; IIGL.
 CC SMR: P09535; 25-91.
 CC Ensembl: ENSMUSG00000048583; Mus musculus.
 CC MGI: MGI:96434; Igf2.
 CC GO: GO:0005615; Extracellular space; TAS.
 CC GO: GO:0005159; F:insulin-like growth factor receptor binding; IPT.
 CC GO: GO:0005515; F:protein binding; IPT.
 CC GO: GO:0009887; P:organogenesis; IMP.
 CC InterPro: IPR004824; Bombyxin.
 CC InterPro: IPR004825; Ins/IGF/relax.
 CC Pfam: PF00049; Insulin; 1.
 CC PRINTS: PR00277; INSULINB.
 CC ProDom: PD001048; Bombyxin; 1.
 CC SMART: SM00078; IIGF; 1.
 CC PROSITE: PS00262; INSULIN; 1.
 CC Growth factor; Mitogen; Signal.
 CC KEGG: K01201; Insulin; 1.
 CC FT CHAIN 1 24 Insulin-like growth factor II.
 CC FT 25 91 /FTId=PRO_0000015720.
 CC FT PROPEP 92 180 E peptide.
 CC FT REGION 25 52 /FTId=PRO_0000015721.
 CC FT REGION 53 64 B.
 CC FT REGION 65 85 C.
 CC FT REGION 86 91 A.
 CC FT DISULFID 33 71 D.
 CC FT DISULFID 45 84 By similarity.
 CC FT DISULFID 70 75 By similarity.
 CC SQ SEQUENCE 180 AA; 20030 MW; 01730F8856E6D7B CRC64;
 CC
 CC Query Match 96.2%; Score 177; DB 1; Length 180;
 CC Best local similarity 94.1%; Pred. No. 2; 2e-17;
 CC Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 CC
 CC QY 1 DVSTSQAVLPDPFRRYPVGKFFQYDTWROSAGRL 34
 CC DB 93 DVSTSQAVLPDPFRRYPVGKFFQYDTWROSAGRL 126
 CC
 CC RESULT 4
 CC Q21D5 MUSSP PRELIMINARY; PRT; 180 AA.
 CC AC Q21D5;
 CC DT 07-MAR-2006, integrated into UniProtKB/TrEMBL.
 CC DT 07-MAR-2006, sequence version 1.
 CC DE Insulin-like growth factor 2.
 CC GN Name=IGF2; ORNames=XK-CH35_17P24.2-002;
 CC OS Mus spretus (Western wild mouse).
 CC OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 CC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 CC Muridae; Muridae; Murinae; Mus.
 CC NCBI_TaxId=10096;

```

RN      [1]
RP      NUCLEOTIDE SEQUENCE.
RA      Matthews L.;
RL      Submitted (FEB-2006) to the EMBL/GenBank/DBJ databases.
CC      -----
CC      Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
CC      Distributed under the Creative Commons Attribution-NoDerivs License
CC      -----
DR      EMBL; C7027994; CAJ76273.1; -; Genomic DNA.
SQ      SEQUENCE 180 AA; 19889 MW; 5CA4059326EE6DB0 CRC64;

Query Match
Best local Similarity 96.2%; Score 177; DB 2; Length 180;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDPFRYPVGKFKFDTWRQSAGRL 34
DB      93 DVSTSQAVLPDDPFRYPVGKFKFDTWRQSAGRL 126

RESULT 5
Q2IDG7 MUSSP PRELIMINARY; PRT; 191 AA.
ID      Q2IDG7 MUSSP
DT      07-MAR-2006, integrated into UniProtKB/TrEMBL.
DT      07-MAR-2006, sequence version 1.
DE      Insulin-like growth factor 1.
GN      Name=IGF2; ORFNames=XX-CH35.17P24.2-001;
OS      Mus spretus (Western wild mouse).
OC      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC      Muridae; Muridae; Murinae; Mus.
NCBI_Taxid=10096;
[1]
RN      NUCLEOTIDE SEQUENCE.
RA      Matthews L.;
RL      Submitted (FEB-2006) to the EMBL/GenBank/DBJ databases.
CC      -----
CC      Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
CC      Distributed under the Creative Commons Attribution-NoDerivs License
CC      -----
DR      EMBL; C7027994; CAJ76271.1; -; Genomic DNA.
SQ      SEQUENCE 191 AA; 20920 MW; B121712E496A7BEA CRC64;

Query Match
Best local Similarity 96.2%; Score 177; DB 2; Length 191;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDPFRYPVGKFKFDTWRQSAGRL 34
DB      104 DVSTSQAVLPDDPFRYPVGKFKFDTWRQSAGRL 137

RESULT 6
IGF2_CAVPO STANDARD; PRT; 128 AA.
ID      IGF2_CAVPO
AC      Q08279;
DT      01-FEB-1995, integrated into UniProtKB/Swiss-Prot.
DT      01-FEB-1995, sequence version 1.
DE      07-FEB-2006, entry version 41.
DE      Insulin-like growth factor II precursor (IGF-II) (Somatomedin A)
DE      (Fragment).
GN      Name=IGF2;
OS      Cavia porcellus (Guinea pig).
OC      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
OC      Hystricognathi; Caviidae; Cavia.
NCBI_Taxid=10141;
[1]
RN      NUCLEOTIDE SEQUENCE [MRNA].
RP      STRAIN=Hartley; Tissue=Liver;
RC      MEDLINE=93246007; PubMed=1301379; DOI=10.1016/0303-7207(92)90216-S;
RX

```

```

RA      Levinovitz A., Norstedt G., van den Berg S., Robinson I.C.A.F.,
RA      Ekstrom T.J.;
RT      "Isolation of an insulin-like growth factor II cDNA from guinea pig
RT      liver: expression and developmental regulation.";
RL      Mol. Cell. Endocrinol. 89:105-110(1992).
CC      -1- FUNCTION: The insulin-like growth factors possess growth-promoting
CC      activity. In vitro, they are potent mitogens for cultured cells.
CC      IGF-II is influenced by placental lactogen and may play a role in
CC      fetal development.
CC      -1- SUBCELLULAR LOCATION: Secreted protein.
CC      -1- DEVELOPMENTAL STAGE: Expressed predominantly in fetal tissues and
CC      at lower levels in adult.
CC      -1- SIMILARITY: Belongs to the insulin family.
CC      -----
CC      Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
CC      Distributed under the Creative Commons Attribution-NoDerivs License
CC      -----
DR      EMBL; S59899; AAB36479.1; -; mRNA.
DR      PIR; I57671; I57671.
DR      HSSP; P01344; 1IGL.
DR      SMR; Q08279; 25-91.
DR      InterPro; IPR004824; Bombyxin.
DR      InterPro; IPR004825; Ins/IGF/relax.
DR      Pfam; PF00049; Insulin; 1.
DR      PRINTS; PR00227; INSULINB.
DR      ProDom; PD001048; Bombyxin; 1.
DR      SMART; SM00078; 1IGF; 1.
DR      PROSITE; PS00262; INSULIN; 1.
KW      Growth factor; Mitogen; Signal.
FT      SIGNAL 1 24
FT      CHAIN 25 91
FT      FT 25 91
FT      PROPEP 92 >128
FT      REGION 25 52
FT      REGION 53 64
FT      REGION 65 85
FT      REGION 86 91
FT      DISULFID 33 71
FT      DISULFID 45 84
FT      DISULFID 70 75
FT      NON TER 128 128
SQ      SEQUENCE 128 AA; 14420 MW; BC65A1D81A4CE056 CRC64;

Query Match
Best local Similarity 80.4%; Score 148; DB 1; Length 128;
Matches 27; Conservative 3; Mismatches 4; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDPFRYPVGKFKFDTWRQSAGRL 34
DB      93 DVSTSQAVLPDDPFRYPVGKFKFDTWRQSAGRL 126

RESULT 7
IGF2_PIG STANDARD; PRT; 181 AA.
ID      IGF2_PIG
AC      P23635;
DT      01-NOV-1991, integrated into UniProtKB/Swiss-Prot.
DT      01-FEB-1996, sequence version 2.
DE      07-FEB-2006, entry version 48.
DE      Insulin-like growth factor II precursor (IGF-II).
GN      Name=IGF2;
OS      Sus scrofa (Pig).
OC      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC      Suidae.
NCBI_Taxid=9823;
[1]
RN      NUCLEOTIDE SEQUENCE.
RP      Catchpole I.R., Engstrom W.;
RX      MEDLINE=91057136; PubMed=2243790;
RT      "Nucleotide sequence of a porcine insulin-like growth factor II
RT      cDNA.";

```


RL Nucleic Acids Res. 18:6430-6430(1990).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=Large white.
 RX MEDLINE=2215958; PubMed=12140686; DOI=10.1007/s00335-001-3059-x;
 RA Anarger V., Nguyen M., Van Laere A.-S., Braunschweig M., Nezer C.,
 RA Georges M., Andersson L.;
 RT "Comparative sequence analysis of the INS-IGF-II β gene cluster in
 RT pigs";
 RL Mamm. Genome 13:388-398(2002).
 RN [3]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=European wild boar, Hampshire, Japanese wild boar, Landrace,
 RC Large white, Meishan, and Pietrain;
 RX MEDLINE=22935770; PubMed=14574411; DOI=10.1038/nature02064;
 RA Van Laere A.-S., Nguyen M., Braunschweig M., Nezer C., Collette C.,
 RA Moreau L., Archibald A.L., Haley C., Buys N., Tally M., Andersson G.,
 RA Georges M., Andersson L.;
 RT "A regulatory mutation in IGF2 causes a major QTL effect on muscle
 RT growth in the pig";
 RL Nature 425:832-836(2003).
 RN [4]
 RP PROTEIN SEQUENCE OF 25-91.
 RX MEDLINE=90039035; PubMed=2809477;
 RA Francis G.L., Owens P.C., McNeil K.A., Wallace J.C., Ballard F.J.;
 RT "Purification, amino acid sequences and assay cross-reactivities of
 RT porcine insulin-like growth factor-I and -II";
 RL J. Endocrinol. 122:1681-1687(1989).
 CC -I- FUNCTION: The insulin-like growth factors possess growth-promoting
 CC activity. In vitro, they are potent mitogens for cultured cells.
 CC IGF-II is influenced by placental lactogen and may play a role in
 CC fetal development.
 CC -I- SUBCELLULAR LOCATION: Secreted protein.
 CC -I- SIMILARITY: Belongs to the insulin family.
 CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>
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 CC -----
 DR EMBL: X56094; CAA39574.1; -; mRNA.
 DR EMBL: AY046828; AAL69551.1; -; Genomic DNA.
 DR EMBL: AY242098; AAQ00953.1; -; Genomic DNA.
 DR EMBL: AY242099; AAQ00955.1; -; Genomic DNA.
 DR EMBL: AY242100; AAQ00958.1; -; Genomic DNA.
 DR EMBL: AY242101; AAQ00961.1; -; Genomic DNA.
 DR EMBL: AY242102; AAQ00964.1; -; Genomic DNA.
 DR EMBL: AY242103; AAQ00967.1; -; Genomic DNA.
 DR EMBL: AY242104; AAQ00970.1; -; Genomic DNA.
 DR EMBL: AY242105; AAQ00973.1; -; Genomic DNA.
 DR EMBL: AY242106; AAQ00976.1; -; Genomic DNA.
 DR EMBL: AY242107; AAQ00979.1; -; Genomic DNA.
 DR EMBL: AY242108; AAQ00982.1; -; Genomic DNA.
 DR EMBL: AY242109; AAQ00984.1; -; Genomic DNA.
 DR EMBL: AY242110; AAQ00986.1; -; Genomic DNA.
 DR EMBL: AY242111; AAQ00988.1; -; Genomic DNA.
 DR EMBL: AY242112; AAQ00991.1; -; Genomic DNA.
 DR HSSP: P01344; 1IGL.
 DR SMR: P23695; 25-91.
 DR InterPro: IPR004825; Ins/IGF/relax.
 DR InterPro: IPR003234; Insulin-like.
 DR Pfam: PF00049; Insulin; 1.
 DR PRINTS: PR00277; INSULIN.
 DR ProDom: PD015667; Mollusc; 1.
 DR SMART: SM00078; 1IGF; 1.
 DR PROSITE: PS00262; INSULIN; 1.
 DR Direct protein sequencing; Growth factor; Mitogen; Signal.
 FT CHAIN 1 24 Insulin-like growth factor II.
 FT SIGNAL 25 91 By similarity.
 FT PROPEP 92 181 E peptide.
 FT REGION 25 52 B.
 FT REGION 53 64 C.
 FT REGION 65 85 A.

FT REGION 86 91 D.
 FT DISUFID 33 71 By similarity.
 FT DISUFID 45 84 By similarity.
 FT DISUFID 70 75 By similarity.
 SQ SEQUENCE 181 AA; 20313 MW; 1816B93529B44E1 CRC64;
 Query Match 79.9%; Score 147; DB 1; Length 181;
 Best Local Similarity 76.5%; Pred. No. 5.3e-13;
 Matches 26; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 QY 1 DVSTQAVLPDPPRPYVGKFKFDYWRQAGRL 34
 Db 93 DVSTPPTVLDPNPPRYVGKFKFRDYWKQAGRL 126
 ID IGF2 MUSVI STANDARD; PRT; 129 AA.
 AC P41694;
 DT 01-NOV-1995, integrated into UniProtKB/Swiss-Prot.
 DT 01-NOV-1995, sequence version 1.
 DT 07-FEB-2006, entry version 34.
 DE Insulin-like growth factor II precursor (IGF-II) (Fragment).
 GN Name=IGF2;
 OS Mustela vison (American mink).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Mustelidae;
 OC Mustelinae; Mustela.
 OX NCBI_TaxID=9667;
 RN [1]
 RP NUCLEOTIDE SEQUENCE [MRNA].
 RC TISSUE=Liver;
 RX MEDLINE=93307613; PubMed=7686523; DOI=10.1006/gen.1993.1079;
 RA Ekstroem T.J., Baecklin B.M., Lindqvist Y., Ekstroem W.;
 RT "Insulin-like growth factor II in the mink (Mustela vison):
 RT determination of a cDNA nucleotide sequence and developmental
 RT regulation of its expression";
 RL Gen. Comp. Endocrinol. 90:243-250(1993).
 CC -I- FUNCTION: The insulin-like growth factors possess growth-promoting
 CC activity. In vitro, they are potent mitogens for cultured cells.
 CC IGF-II is influenced by placental lactogen and may play a role in
 CC fetal development.
 CC -I- SUBCELLULAR LOCATION: Secreted protein.
 CC -I- SIMILARITY: Belongs to the insulin family.
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 CC -----
 DR EMBL: S63459; AAB27392.2; -; mRNA.
 DR HSSP: P01344; 1IGL.
 DR SMR: P41694; 25-92.
 DR InterPro: IPR004825; Ins/IGF/relax.
 DR Pfam: PF00049; Insulin; 1.
 DR PRINTS: PR00277; INSULIN.
 DR SMART: SM00078; 1IGF; 1.
 DR PROSITE: PS00262; INSULIN; 1.
 DR Growth factor; Mitogen; Signal.
 FT CHAIN 1 24 Insulin-like growth factor II.
 FT SIGNAL 25 92 E peptide (By similarity).
 FT PROPEP 93 >129 /FTID=PRO_0000015723.
 FT REGION 25 52 B.
 FT REGION 53 65 C.
 FT REGION 66 86 A.
 FT REGION 87 92 D.
 FT DISUFID 33 72 By similarity.
 FT DISUFID 45 85 By similarity.
 FT DISUFID 71 76 By similarity.
 FT NON_TER 129 129
 SQ SEQUENCE 129 AA; 14437 MW; FD06661DAFB473D0 CRC64;
 Query Match 79.3%; Score 146; DB 1; Length 129;

"A new 5'-non-coding region for human placental insulin-like growth factor II mRNA expression";
 RT FEBS Lett. 222:181-185(1987).
 RN [15]
 RP NUCLEOTIDE SEQUENCE OF 1-52.
 RC TISSUE=Liver;
 RX MEDLINE=8003966; PubMed=3652904;
 RA Gray A., Tam A.W., Dull T.J., Hayflick J.S., Pintar J., Cavenne W.K., Koulouf A., Ulrich A.;
 RT "Tissue-specific and developmentally regulated transcription of the insulin-like growth factor 2 gene";
 RL DNA 6:283-295(1987).
 RN [16]
 RP PROTEIN SEQUENCE OF 25-91.
 RX MEDLINE=78191259; PubMed=658418; DOI=10.1016/0014-5793(78)80237-3;
 RA Rinderknecht E., Humbel R.E.;
 RT "Primary structure of human insulin-like growth factor II";
 RL FEBS Lett. 89:283-286(1978).
 RN [17]
 RP PARTIAL PROTEIN SEQUENCE, AND DISULFIDE BONDS.
 RX MEDLINE=89255428; PubMed=272836;
 RA Smith M.C., Cook J.A., Furman T.C., Occolowicz J.L.;
 RT "Structure and activity dependence of recombinant human insulin-like growth factor II on disulfide bond pairing";
 RL J. Biol. Chem. 264:9314-9321(1989).
 RN [18]
 RP PROTEIN SEQUENCE OF 25-68.
 RX MEDLINE=95360205; PubMed=7633596; DOI=10.1016/0378-4347(94)00576-0;
 RA De Gennalich F., Willeput J., Corvol M.;
 RT "Purification and characterization of insulin-like growth factor II (IGF II) and an IGF II variant from human placenta";
 RL J. Chromatogr. B 666:203-214(1995).
 RN [19]
 RP MASS SPECTROMETRY, AND PROCESSING.
 RX MEDLINE=22474139; PubMed=12586351; DOI=10.1016/S0014-5793(03)00042-5;
 RA Nedelkov D., Nelson R.W., Kiernan U.A., Niederkofer E.E., Tubbs K.A.;
 RT "Detection of bound and free IGF-1 and IGF-2 in human plasma via biomolecular interaction analysis mass spectrometry";
 RL FEBS Lett. 536:130-134(2003).
 RN [20]
 RP MASS SPECTROMETRY, AND PROCESSING.
 RX PubMed=15359740; DOI=10.1021/pr0499388;
 RA Nelson R.W., Nedelkov D., Tubbs K.A., Kiernan U.A.;
 RT "Quantitative mass spectrometric immunoassay of insulin like growth factor I";
 RL J. Proteome Res. 3:851-855(2004).
 RN [21]
 RP CARBOHYDRATE-LINKAGE SITE THR-99.
 RX MEDLINE=92235026; PubMed=1569071;
 RA Huggins W.R., Hampton B., Burgess W.H., Perdue J.F.;
 RT "The identification of O-glycosylated precursors of insulin-like growth factor II";
 RL J. Biol. Chem. 267:8153-8160(1992).
 RN [22]
 RP 3D-STRUCTURE MODELING.
 RX MEDLINE=83210259; PubMed=6189745;
 RA Blundell T.L., Bedarke S., Humbel R.E.;
 RT "Tertiary structures, receptor binding, and antigenicity of insulin-like growth factors";
 RL Fed. Proc. 42:2592-2597(1983).
 RN [23]
 RP STRUCTURE BY NMR.
 RX MEDLINE=95080243; PubMed=7527339;
 RA Teraawa H., Kohda D., Hatanaka H., Nagata K., Higashihashi N.,

Query Match 77.2%; Score 142; DB 1; Length 180;
 Best Local Similarity 73.5%; Pred. No. 2.9e-12;
 Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPFRYPVGKFKFDPTWROSA 34
 DB 93 DVSTPPTVLPDNPFRYPVGKFKFDPTWKOSTORL 126

RESULT 10
 Q8MUT5_PIG* PRELIMINARY; PRT; 123 AA.
 ID Q8MUT5_PIG
 AC Q8MUT5;
 DT 01-OCT-2002, integrated into UniProtKB/TrEMBL.
 DT 01-OCT-2002, sequence version 1.
 DT 07-FEB-2006, entry version 15.
 DE Insulin-like growth factor 2 preproprotein (Fragment).
 GN Name=IGF2;
 OS Sus scrofa (Pig).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suidae; Suidae;
 OC Sus.
 NC NCBI_TaxID=9823;
 OX NCBI [1]
 RN NUCLEOTIDE SEQUENCE.
 RP MEDLINE=22135958; PubMed=12140686; DOI=10.1007/s00335-001-3059-x;
 RA Amarger V., Nguyen M., Van Laere A.-S., Braunschweig M., Nezer C., Georges M., Andersson L.;
 RT "Comparative sequence analysis of the INS-IGF2-H19 gene cluster in pigs";
 RL Mamm. Genome 13:388-398(2002).
 CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC
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 CC
 DR EMBL: AF466299; AAW83400.1; -; mRNA.
 DR HSSP: P01344; 1IGL.
 DR SMR; Q8MUT5; 25-91.
 DR GO; GO:0005576; C:extracellular region; IEA.
 DR GO; GO:0005179; F:hormone activity; IEA.
 DR GO; GO:0018445; F:prohormonotrophic hormone activity; IEA.
 DR GO; GO:0007582; P:physiological process; IEA.
 DR InterPro: IPR004825; Bombyxin.
 DR InterPro: IPR004825; Ins/IGF/relax.
 DR InterPro: IPR003234; Insulin-like.
 DR Pfam: PF00049; Insulin; 1.
 DR PRINTS: PR00276; INSULINA.
 DR PRINTS: PR00277; INSULINB.
 DR ProDom: PD001048; Bombyxin; 1.
 DR ProDom: PD015667; Molluscins; 1.
 DR SMART: SM00078; IIGF; 1.
 DR PROSITE: PS00262; INSULIN; 1.
 FT NON TER 123
 FT SEQUENCE 123 AA; 13876 MW; A0783AF5D9B89338 CRC64;

Query Match 76.1%; Score 140; DB 2; Length 123;
 Best Local Similarity 77.4%; Pred. No. 3.6e-12;
 Matches 24; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPFRYPVGKFKFDPTWROSA 31
 DB 93 DVSTPPTVLPDNPFRYPVGKFKFDPTWKOSA 123

RESULT 11
 O53WT7_RAT PRELIMINARY; PRT; 78 AA.
 ID O53WT7_RAT
 AC O53WT7;
 DT 24-MAY-2005, integrated into UniProtKB/TrEMBL.
 DT 24-MAY-2005, sequence version 1.
 DT 07-FEB-2006, entry version 3.
 DE Insulin-like growth factor II gene (Fragment).
 GN Name=IGFII;
 OS Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi; Muridae; Muridae; Murinae; Rattus.
 OX NCBI_TaxID=10116;
 OX [1]

RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Sprague-Dawley;
RX MEDLINE=90001243; PubMed=2477062; DOI=10.1016/0167-4781(89)90074-2;
RA Ueno T., Takahashi K., Matsuguchi T., Ikejiri K., Endo H.,
RY Yamamoto M.;
RT "Multiple polyadenylation sites in a large 3'-most exon of the rat
insulin-like growth factor II gene.";
RL Biochim. Biophys. Acta 1009:27-34(1989).
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CC
DR EMBL: X16703; CAA34674.1; -; mRNA.
FT NON_TER 1 1
SQ SEQUENCE 78 AA; 8983 MW; 7E827486A08EC31 CRC64;

Query Match 74.5%; Score 137; DB 2; Length 78;
Best Local Similarity 100.0%; Pred. No. 5, 9e-12;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 11 DDFPRYPVGKFKFDTWRQSGARL 34
Db 1 DDFPRYPVGKFKFDTWRQSGARL 24
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IGF2_SHEEP STANDARD; PRT; 179 AA.
ID IGF2_SHEEP
AC P10764;
DT 01-JUL-1989, integrated into UniProtKB/Swiss-Prot.
DT 01-OCT-1989, sequence version 2.
DT 07-FEB-2006, entry version 51.
DE Insulin-like growth factor II precursor (IGF-II).
GN Name=IGF2;
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Caprinae; Ovis.
OC NCBI_TaxID=9940;
OX
RN
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Liver;
RX MEDLINE=89345107; PubMed=2762134;
RA O'Mahoney J.V., Adams T.E.;
RT "Nucleotide sequence of an ovine insulin-like growth factor-II cDNA.";
RL Nucleic Acids Res. 17:5392-5392(1989).
RN
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Liver;
RX MEDLINE=90356421; PubMed=2388846;
RA Brown W.M., Dziegilewska K.M., Foreman R.C., Saunders N.R.;
RT "The nucleotide and deduced amino acid sequences of insulin-like
growth factor II cDNAs from adult bovine and fetal sheep liver.";
RL Nucleic Acids Res. 18:4614-4614(1990).
RN
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Cowworth; TISSUE=Liver;
RX MEDLINE=93250051; PubMed=8485157; DOI=10.1016/0167-4781(93)90246-A;
RA Demmer J., Hill D.F., Petersen G.B.;
RT "Characterization of two sheep insulin-like growth factor II cDNAs
with different 5'-untranslated regions.";
RL Biochim. Biophys. Acta 1173:79-80(1993).
RN
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Liver;
RA Olsen S.M., Wong E.A.;
RL Submitted (SEP-1990) to the EMBL/GenBank/DBJ databases.
RN
RP PROTEIN SEQUENCE OF 25-91.
RX MEDLINE=89156887; PubMed=2537174;
RA Francis G.L., McNeill K.A., Wallace J.C., Ballard F.J., Owens P.C.;
RT "Sheep insulin-like growth factors I and II: sequences, activities and
assays.";

RL Endocrinology 124:1173-1183(1989).
RN
RP PROTEIN SEQUENCE OF 25-58.
RX MEDLINE=89323215; PubMed=2752053; DOI=10.1016/0167-4838(89)90131-3;
RA Hey A.W., Browne C.A., Simpson R.J., Thorburn G.D.;
RT "Simultaneous isolation of insulin-like growth factors I and II from
adult sheep serum.";
RL Biochim. Biophys. Acta 997:27-35(1989).
CC
CC - FUNCTION: The insulin-like growth factors possess growth-promoting
activity. In vitro, they are potent mitogens for cultured cells.
CC IGF-II is influenced by placental lactogen and may play a role in
fetal development.
CC
CC - SUBCELLULAR LOCATION: secreted protein.
CC
CC - SIMILARITY: Belongs to the insulin family.
CC
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CC
DR EMBL: U00668; AAB60626.1; -; Genomic DNA.
DR EMBL: U00665; AAB60626.1; JOINED; Genomic DNA.
DR EMBL: U00667; AAB60626.1; JOINED; Genomic DNA.
DR EMBL: X15248; CAA3324.1; -; mRNA.
DR EMBL: X53554; CAA37621.1; -; mRNA.
DR EMBL: M89788; AAA31548.1; -; mRNA.
DR EMBL: M89789; AAA31549.1; -; mRNA.
DR EMBL: X55638; CAA39163.1; -; mRNA.
DR PIR: S04858; S04858.
DR HSSP: P01344; 11GL.
DR SMR: P10764; 25-91.
DR InterPro: IPR004825; Ins/IGF/relax.
DR Pfam: PF00049; Insulin; 1.
DR PRINTS: PRO0277; INSULIN.
DR SMART: SM00078; IIGF; 1.
DR PROSITE: PS00262; INSULIN; 1.
KW Direct protein sequencing; Growth factor; Mitogen; Signal.
FT SIGNAL 1 24
FT CHAIN 25 91 Insulin-like growth factor II.
FT PROPEP 92 179 E peptide.
FT REGION 25 52 /FTID=PRO_0000015732.
FT REGION 53 64 B.
FT REGION 65 85 C.
FT REGION 86 91 A.
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FT DISULFID 45 84 By similarity.
FT DISULFID 70 75 By similarity.
FT CONFLICT 46 47 GD -> DG (in Ref. 5).
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Matches 24; Conservative 2; Mismatches 8; Indels 0; Gaps 0;

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Db 93 DVSTQAVLPDDPRYPVGKFKFDTWRQSGARL 126
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ID O673F2_DIDMA
AC O673F2;
DT 11-OCT-2004, integrated into UniProtKB/TrEMBL.
DT 11-OCT-2004, sequence version 1.
DT 07-FEB-2006, entry version 9.
DE Insulin-like growth factor 2.
GN Name=IGF2;
OS Didelphis marsupialis virginiana (North American opossum).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Metatheria; Didelphimorphia; Didelphidae; Didelphis.
OX NCBI_TaxID=9267;
RN [1]

RP NUCLEOTIDE SEQUENCE.
 RA PubMed=15342558; DOI=10.1101/gr.2774804;
 RT "Phylogenetic Footprint Analysis of IGF2 in Extant Mammals";
 RL Genome Res. 14:1726-1732(2004).
 CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC -----
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 CC -----
 DR EMBL: AY552325; AAT45413.1; -; Genomc_DNA.
 DR SMR: Q673F2; 25-95.
 DR GO: GO:0005576; C:extracellular region; IEA.
 DR GO: GO:0005179; F:hormone activity; IEA.
 DR GO: GO:0007582; P:physiological process; IEA.
 DR InterPro: IPR004825; Ins/IGF/relax.
 DR Pfam: PF00049; Insulin; 1.
 DR PRINTS: PR00277; INSULIN.
 DR ProDom: PD015667; Mollusc_ins; 1.
 DR SMART: SM00078; IIGF; 1.
 DR PROSITE: PS00262; INSULIN; 1.
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 Matches 22; Conservative 7; Mismatches 5; Indels 0; Gaps 0;
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 Db 97 DLASMMVLPENPFRPVGKFKLDITWQKSHRL 130
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 Q9MYZ6 TRIVU PRELIMINARY; PRT; 106 AA.
 AC Q9MYZ6;
 DT 01-OCT-2000, integrated into UniProtKB/TrEMBL.
 DT 07-FEB-2006, entry version 19.
 DE Insulin-like growth factor 2 (Fragment).
 OS Trichosurus vulpecula (Brush-tailed possum).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Metatheria; Diprotodontia; Phalangeridae; Trichosurus.
 OX NCBI_TaxID=9337;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=21100219; PubMed=11161776; DOI=10.1006/gen.2000.7581;
 RA Saunders M.C., Gemmell R.T., Curlewis J.D.;
 RT "Insulin-like growth factor 2 cDNA cloning and ontogeny of gene
 expression in the liver of the marsupial brush-tail possum (Trichosurus
 vulpecula)".
 RL Gen. Comp. Endocrinol. 121:114-124(2001).
 CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC -----
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 CC -----
 DR EMBL: AF776074; AAF76900.1; -; mRNA.
 DR HSSP: P01344; 1IGL.
 DR SMR: Q9MYZ6; 3-73.
 DR GO: GO:0005576; C:extracellular region; IEA.
 DR GO: GO:0005179; F:hormone activity; IEA.
 DR GO: GO:0007582; P:physiological process; IEA.
 DR InterPro: IPR004825; Ins/IGF/relax.
 DR InterPro: IPR003234; Insulin-like.
 DR Pfam: PF00049; Insulin; 1.
 DR PRINTS: PR00276; INSULIN.
 DR ProDom: PD015667; Mollusc_ins; 1.
 DR SMART: SM00078; IIGF; 1.

DR PROSITE: PS00262; INSULIN; 1.
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 Matches 20; Conservative 7; Mismatches 4; Indels 0; Gaps 0;
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 Db 75 DLASMMVLPENPFRPVGKFKLDITWQKSA 105
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 ID Q862E7;
 AC Q862E7;
 DT 01-JUN-2003, integrated into UniProtKB/TrEMBL.
 DT 01-JUN-2003, sequence version 1.
 DT 07-FEB-2006, entry version 16.
 DE Similar to insulin-like growth factor II (Fragment).
 OS Bos taurus (Bovine).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 OC Pecora; Bovidae; Bovinae; Bos.
 OX NCBI_TaxID=9913;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=22544902; PubMed=12658628; DOI=10.1002/mrd.10292;
 RA Iihwata H., Katsuna S., Kizaki K., Patel O.V., Nakano H.,
 RA Takahashi T., Imai K., Hirasawa A., Shiojima S., Ikawa H., Suzuki Y.,
 RA Tsujimoto G., Iizake Y., Todoroki J., Hashizume K.;
 RT "Characterization of gene expression profiles in early bovine
 pregnancy using a custom cDNA microarray".
 RL Mol. Reprod. Dev. 65:9-18(2003).
 CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC -----
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 DR EMBL: AB099052; BAC56542.1; -; mRNA.
 DR HSSP: P01344; 1IGL.
 DR GO: GO:0005576; C:extracellular region; IEA.
 DR GO: GO:0005179; F:hormone activity; IEA.
 DR GO: GO:0007582; P:physiological process; IEA.
 DR InterPro: IPR004825; Ins/IGF/relax.
 DR Pfam: PF00049; Insulin; 1.
 DR PROSITE: PS00262; INSULIN; 1.
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 Best Local Similarity 64.7%; Pred. No. 2.5e-09;
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 Db 27 DVASSTTVLPDDTATVPVGVGKFKDYIMKSTQRL 60
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 Job time: 164.333 secs

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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:46:05 ; Search time 31 Seconds
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Title: US-10-632-366-2

Perfect score: 184
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Gapop 10.0 , Gapext 0.5

Searched: 650591 seqs, 87530628 residues

Total number of hits satisfying chosen parameters: 650591

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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- 2: /EMC_Celerra_SIDS3/ptodata/2/1aa/6_COMB.pep:*
- 3: /EMC_Celerra_SIDS3/ptodata/2/1aa/7_COMB.pep:*
- 4: /EMC_Celerra_SIDS3/ptodata/2/1aa/H_COMB.pep:*
- 5: /EMC_Celerra_SIDS3/ptodata/2/1aa/PCTUS_COMB.pep:*
- 6: /EMC_Celerra_SIDS3/ptodata/2/1aa/RE_COMB.pep:*
- 7: /EMC_Celerra_SIDS3/ptodata/2/1aa/backfilest1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	142	77.2	35	2	US-09-623-548A-381
2	142	77.2	35	2	US-09-657-276-381
3	142	77.2	155	2	US-08-950-720A-10
4	142	77.2	156	2	US-09-428-326A-7
5	142	77.2	156	2	US-09-972-809-7
6	142	77.2	156	2	US-09-972-809-7
7	142	77.2	180	1	US-07-953-230A-12
8	142	77.2	180	2	US-09-617-389B-19
9	142	77.2	180	7	5405942-4
10	64	34.8	16	2	US-09-623-548A-380
11	64	34.8	16	2	US-10-360-101-185
12	64	34.8	16	2	US-09-657-276-380
13	54.5	29.6	488	2	US-09-248-796A-15101
14	54	29.3	372	2	US-09-489-039A-10774
15	54	29.3	421	2	US-09-489-039A-7512
16	52	28.3	403	2	US-10-104-047-2454
17	50	27.2	717	2	US-10-104-047-2454
18	49.5	26.9	256	2	US-09-336-643A-14
19	49	26.6	254	2	US-09-489-039A-9738
20	48.5	26.4	472	2	US-09-667-365-1901
21	48.5	26.4	473	1	US-08-073-383-6
22	48.5	26.4	473	2	US-09-460-421-17
23	48.5	26.4	473	5	PCT-US94-06365-6
24	48	26.1	375	1	US-08-464-523B-24
25	48	26.1	423	1	US-08-464-523B-25
26	47.5	25.8	214	1	US-07-953-230A-11

27	47	25.5	94	2	US-09-252-991A-24602	Sequence 24602, A
28	47	25.5	1043	2	US-08-252-991A-31111	Sequence 31111, A
29	47	25.5	3698	2	US-08-750-717-2	Sequence 2, Appl1
30	46	25.0	1132	2	US-09-248-796A-15026	Sequence 15026, A
31	45.5	24.7	213	2	US-09-252-991A-21832	Sequence 21832, A
32	45.5	24.7	362	1	US-08-464-523B-32	Sequence 32, Appl1
33	45.5	24.7	362	1	US-08-440-845D-6	Sequence 25, Appl1
34	45.5	24.7	362	1	US-08-440-845D-6	Sequence 6, Appl1
35	45.5	24.7	362	2	US-08-868-458-6	Sequence 6, Appl1
36	45.5	24.7	362	2	US-09-303-592-2	Sequence 2, Appl1
37	45.5	24.7	362	2	US-09-303-592-2	Sequence 4, Appl1
38	45.5	24.7	362	2	US-09-949-016-7455	Sequence 7455, Ap
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40	45.5	24.7	362	2	US-09-949-016-7457	Sequence 7457, Ap
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42	45.5	24.7	362	2	US-09-949-016-7459	Sequence 7459, Ap
43	45.5	24.7	362	2	US-09-949-016-7460	Sequence 7460, Ap
44	45.5	24.7	362	2	US-10-142-540-2	Sequence 2, Appl1
45	45.5	24.7	362	2	US-10-142-540-4	Sequence 4, Appl1

ALIGNMENTS

```
RESULT 1
US-09-623-548A-381
Sequence 381, Application US/09623548A
Patent No. 6849714
GENERAL INFORMATION:
APPLICANT: Conjuchem, Inc.
APPLICANT: Bridon, Dominique
APPLICANT: Barrin, Alan
APPLICANT: Milner, Peter
APPLICANT: Holmes, Darren
APPLICANT: Thibaudau, Karen
TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
TITLE OF INVENTION: COMPONENTS
FILE REFERENCE: 2110
CURRENT APPLICATION NUMBER: US/09/623,548A
CURRENT FILING DATE: 2000-09-05
PRIOR APPLICATION NUMBER: 60/134,406
PRIOR FILING DATE: 1999-05-17
PRIOR APPLICATION NUMBER: 60/153,406
PRIOR FILING DATE: 1999-09-10
PRIOR APPLICATION NUMBER: 60/159,783
PRIOR FILING DATE: 1999-10-18
NUMBER OF SEQ ID NOS: 1617
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 381
LENGTH: 35
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-09-623-548A-381
Query Match 77.2% Score 142 DB 2 Length 35
Best local similarity 73.5% Pred. No. 3e-14
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;
QY 1 DVTSQAVLPDPFPRYPVGKFKFDTRWSAGRL 34
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Db 2 DVSTPTVLPMNPRYPVGKFKFDTRWSAGRL 35
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RESULT 2
US-09-657-276-381
Sequence 381, Application US/09657276
Patent No. 6887470
GENERAL INFORMATION:
APPLICANT: Conjuchem, Inc.
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; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaut, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/657,276
; CURRENT FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 381
; LENGTH: 35
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; US-09-657-276-381

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Best Local Similarity 73.5%; Pred. No. 3e-14;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

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Db      2 DVSTPPTVLPDNPFRYPVGKFFQYDTWKSTQRL 35

RESULT 3
US-08-950-720A-10
; Sequence 10, Application US/08950720A
; Patent No. 6046028
; GENERAL INFORMATION:
; APPLICANT: Conklin, Darrell C.
; APPLICANT: Lofton-Day, Catherine E.
; APPLICANT: Lok, Si
; APPLICANT: Jaspers, Stephen R.
; TITLE OF INVENTION: INSULIN HOMOLOG
; NUMBER OF SEQUENCES: 17
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Zymogenetics, Inc.
; STREET: 1201 Eastlake Avenue East
; CITY: Seattle
; STATE: WA
; COUNTRY: USA
; ZIP: 98102
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/950,720A
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Sawislak, Deborah A
; REGISTRATION NUMBER: 37,438
; REFERENCE/DOCKET NUMBER: 96-09
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 206-442-6672
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; TELEFAX: 206-442-6678
;
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; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 155 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: NO. 6046028e
; US-08-950-720A-10

Query Match      77.2%; Score 142; DB 2; Length 155;
Best Local Similarity 73.5%; Pred. No. 1.6e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

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Db      93 DVSTPPTVLPDNPFRYPVGKFFQYDTWKSTQRL 126

RESULT 4
US-09-428-226A-7
; Sequence 7, Application US/09428226A
; Patent No. 6548482
; GENERAL INFORMATION:
; APPLICANT: Sundee, Khosla
; APPLICANT: Conover, Cheryl A.
; TITLE OF INVENTION: TREATMENT OF OSTEOPOROSIS
; FILE REFERENCE: 07039/183001
; CURRENT APPLICATION NUMBER: US/09/428,226A
; CURRENT FILING DATE: 1999-10-27
; PRIOR APPLICATION NUMBER: 09/073,032
; PRIOR FILING DATE: 1998-05-05
; PRIOR APPLICATION NUMBER: 60/045,607
; PRIOR FILING DATE: 1997-05-05
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 156
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-428-226A-7

Query Match      77.2%; Score 144; DB 2; Length 156;
Best Local Similarity 73.5%; Pred. No. 1.6e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY      1 DVSTQAVLPDDFPRYPVGKFFKFDTWRSAGRL 34
      |||||:|||||:|||||:|||||:|||||
Db      69 DVSTPPTVLPDNPFRYPVGKFFQYDTWKSTQRL 102

RESULT 5
US-09-972-809-7
; Sequence 7, Application US/09972809
; Patent No. 663084
; GENERAL INFORMATION:
; APPLICANT: Sundee, Khosla
; APPLICANT: Conover, Cheryl A.
; TITLE OF INVENTION: TREATMENT OF OSTEOPOROSIS
; FILE REFERENCE: 07039/183001
; CURRENT APPLICATION NUMBER: US/09/972,809
; CURRENT FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: 09/428,226
; PRIOR FILING DATE: 1999-10-27
; PRIOR APPLICATION NUMBER: 60/045,607
; PRIOR FILING DATE: 1997-05-05
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 156
; TYPE: PRT
; ORGANISM: Homo sapiens
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US-09-972-809-7

Query Match 77.2%; Score 142; DB 2; Length 156;
Best Local Similarity 73.5%; Pred. No. 1.6e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDFPYRVGKFKFEDTWKQSGRL 34
DB 69 DVSTPPTVLPDNFPYRVGKFKFYDTWKQSTQRL 102

RESULT 6

US-09-972-809-7
; Sequence 7, Application US/09972809
; Patent No. 6916790
; GENERAL INFORMATION:
; APPLICANT: Sundee, Khosla
; APPLICANT: Conover, Cheryl A.
; TITLE OF INVENTION: TREATMENT OF OSTEOPOROSIS
; FILE REFERENCE: 07039/183001
; CURRENT APPLICATION NUMBER: US/09/972,809
; CURRENT FILING DATE: 2001-10-05
; PRIOR FILING DATE: 1999-10-27
; PRIOR APPLICATION NUMBER: 60/045,607
; PRIOR FILING DATE: 1997-05-05
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 156
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-972-809-7

Query Match 77.2%; Score 142; DB 2; Length 156;
Best Local Similarity 73.5%; Pred. No. 1.6e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDFPYRVGKFKFEDTWKQSGRL 34
DB 69 DVSTPPTVLPDNFPYRVGKFKFYDTWKQSTQRL 102

RESULT 7

US-07-953-230A-12
; Sequence 12, Application US/07953230A
; Patent No. 5476779
; GENERAL INFORMATION:
; APPLICANT: CHEN, Thomas T
; APPLICANT: SHAMLOTT, Michael J
; TITLE OF INVENTION: INSULIN-LIKE GROWTH FACTORS ISOLATED
; TITLE OF INVENTION: FROM RAINBOW TROUT
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: George Mason Bldg., Washington & Prince Sts.
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: United States
; ZIP: 22313-1404
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/953,230A
; FILING DATE: 30-SEP-1992
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Crane-Feury, Sharon E
; REGISTRATION NUMBER: 36,113
; REFERENCE/DOCKET NUMBER: 028755-010

TELECOMMUNICATION INFORMATION:

TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 180 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein

FEATURE:
NAME/KEY: Peptide
LOCATION: 57
OTHER INFORMATION: /note= "Gap of 1 after 57."
FEATURE:
NAME/KEY: Peptide
LOCATION: 59
OTHER INFORMATION: /note= "Gap of 1 after 59."
FEATURE:
NAME/KEY: Peptide
LOCATION: 63
OTHER INFORMATION: /note= "Gap of 2 after 63."
FEATURE:
NAME/KEY: Peptide
LOCATION: 85
OTHER INFORMATION: /note= "Gap of 2 after 85."
FEATURE:
NAME/KEY: Peptide
LOCATION: 96
OTHER INFORMATION: /note= "Gap of 3 after 96."
FEATURE:
NAME/KEY: Peptide
LOCATION: 97
OTHER INFORMATION: /note= "Gap of 8 after 97."
FEATURE:
NAME/KEY: Peptide
LOCATION: 119
OTHER INFORMATION: /note= "Gap of 1 after 119."

US-07-953-230A-12

Query Match 77.2%; Score 142; DB 1; Length 180;
Best Local Similarity 73.5%; Pred. No. 1.8e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDFPYRVGKFKFEDTWKQSGRL 34
DB 93 DVSTPPTVLPDNFPYRVGKFKFYDTWKQSTQRL 126

RESULT 8

US-09-617-389B-19
; Sequence 19, Application US/09617389B
; Patent No. 6709659
; GENERAL INFORMATION:
; APPLICANT: Lok, Si
; APPLICANT: Conklin, Darrell C.
; APPLICANT: Lofton-Day, Catherine E.
; TITLE OF INVENTION: Antibodies That Bind Testis-Specific
; TITLE OF INVENTION: Insulin Homolog Polypeptides
; FILE REFERENCE: 96-06C3
; CURRENT APPLICATION NUMBER: US/09/617,389B
; CURRENT FILING DATE: 2000-07-17
; PRIOR APPLICATION NUMBER: 09/339,148
; PRIOR FILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: 08/905,267
; PRIOR FILING DATE: 1997-01-18
; PRIOR APPLICATION NUMBER: 60/023,213
; PRIOR FILING DATE: 1996-02-08
; PRIOR APPLICATION NUMBER: 60/031,592
; PRIOR FILING DATE: 1996-11-21
; NUMBER OF SEQ ID NOS: 24
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 19

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; LENGTH: 180
; TYPE: PRT
; ORGANISM: Human
US-09-617-389B-19

Query Match          77.2%; Score 142; DB 2; Length 180;
Best Local Similarity 73.5%; Pred. No. 1.8e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPPRYVGKFKFKEDTWRSAGRL 34
DB 93 DVSTPPTVLPDNFPRYPVGKFKFYDTWKOSTORL 126

RESULT 9
5405942-4
; Patent No. 5405942
; APPLICANT: BELL, GRAEME I.,PALL, LESLIE B.,MERRYWEATHER,
; JAMES P.
; TITLE OF INVENTION: PREPRO INSULIN-LIKE GROWTH FACTORS
; I AND II
; NUMBER OF SEQUENCES: 16
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/65,673
; FILING DATE: 16-JUN-1987
; PRIOR APPLICATION NUMBER: 630,557
; FILING DATE: 19-JUL-1984
; SEQ ID NO:4
; LENGTH: 180
5405942-4

Query Match          77.2%; Score 142; DB 7; Length 180;
Best Local Similarity 73.5%; Pred. No. 1.8e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPPRYVGKFKFKEDTWRSAGRL 34
DB 93 DVSTPPTVLPDNFPRYPVGKFKFYDTWKOSTORL 126

RESULT 10
US-09-623-548A-380
; Sequence 380, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 380
; LENGTH: 16
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
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US-09-623-548A-380

Query Match          34.8%; Score 64; DB 2; Length 16;
Best Local Similarity 75.0%; Pred. No. 0.0063;
Matches 12; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPPRY 16
DB 1 DVSTPPTVLPDNFPY 16

RESULT 11
US-10-360-101-185
; Sequence 185, Application US/10360101
; Patent No. 6861236
; GENERAL INFORMATION:
; APPLICANT: Mol1, Gert N.
; APPLICANT: Leenhouts, Cornelis J.
; TITLE OF INVENTION: Export and modification of (poly)peptide in the lantibiotic way
; FILE REFERENCE: 2183-5673
; CURRENT APPLICATION NUMBER: US/10/360,101
; CURRENT FILING DATE: 2003-02-07
; PRIOR APPLICATION NUMBER: EP 02077060.8
; PRIOR FILING DATE: 2002-05-24
; NUMBER OF SEQ ID NOS: 309
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 185
; LENGTH: 16
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: (C7)-sequence of IGF II 69-84
US-10-360-101-185

Query Match          34.8%; Score 64; DB 2; Length 16;
Best Local Similarity 75.0%; Pred. No. 0.0063;
Matches 12; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPPRY 16
DB 1 DVSTPPTVLPDNFPY 16
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RESULT 12
US-09-657-276-380
; Sequence 380, Application US/09657276
; Patent No. 6887470
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/657,276
; CURRENT FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 380
; LENGTH: 16
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
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OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: Peptide
US-09-657-276-380

Query Match 34.8%; Score 64; DB 2; Length 16;
Best Local Similarity 75.0%; Pred. No. 0.0063;
Matches 12; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPRY 16
DB 1 DVSTPPTVLPDNPY 16

RESULT 13
US-09-248-796A-15101

Sequence 15101, Application US/09248796A
Patent No. 6747137
GENERAL INFORMATION:
APPLICANT: Keith Weinstock et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICAN
FILE REFERENCE: 107196.132
CURRENT FILING DATE: 1999-02-12
PRIOR FILING DATE: 1998-02-13
PRIOR APPLICATION NUMBER: US 60/074,725
PRIOR FILING DATE: 1998-08-13
NUMBER OF SEQ ID NOS: 28208
SEQ ID NO 15101
LENGTH: 488
TYPE: PRT
ORGANISM: Candida albicans
US-09-248-796A-15101

Query Match 29.6%; Score 54.5; DB 2; Length 488;
Best Local Similarity 41.4%; Pred. No. 7.3;
Matches 12; Conservative 6; Mismatches 10; Indels 1; Gaps 1;

QY 2 VSTQAVLPDDPRYPVGKFKFDTRQS 30
DB 132 IITNLAIADVPEIFP-RRFAKVEIWGTS 159

RESULT 14
US-09-489-039A-10774

Sequence 10774, Application US/09489039A
Patent No. 6610836
GENERAL INFORMATION:
APPLICANT: Gary Breton et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
FILE REFERENCE: 2709.2004001
CURRENT FILING DATE: 2000-01-27
PRIOR APPLICATION NUMBER: US 60/117,747
PRIOR FILING DATE: 1999-01-29
NUMBER OF SEQ ID NOS: 14342
SEQ ID NO 10774
LENGTH: 372
TYPE: PRT
ORGANISM: Klebsiella pneumoniae
US-09-489-039A-10774

Query Match 29.3%; Score 54; DB 2; Length 372;
Best Local Similarity 35.3%; Pred. No. 6.4;
Matches 12; Conservative 8; Mismatches 8; Indels 6; Gaps 2;

QY 1 DVSTQAVLPDDPRY-----PVGKFKFDTRQ 29
DB 195 DWASRALPDDPREHYIVIQPTSRWF-FKQWRE 227

RESULT 15
US-09-489-039A-7512
Sequence 7512, Application US/09489039A
Patent No. 6610836
GENERAL INFORMATION:
APPLICANT: Gary Breton et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
FILE REFERENCE: 2709.2004001
CURRENT FILING DATE: 2000-01-27
PRIOR APPLICATION NUMBER: US 60/117,747
PRIOR FILING DATE: 1999-01-29
NUMBER OF SEQ ID NOS: 14342
SEQ ID NO 7512
LENGTH: 421
TYPE: PRT
ORGANISM: Klebsiella pneumoniae
US-09-489-039A-7512

Query Match 29.3%; Score 54; DB 2; Length 421;
Best Local Similarity 41.7%; Pred. No. 7.4;
Matches 10; Conservative 2; Mismatches 12; Indels 0; Gaps 0;

QY 9 LPDDPRYPVGKFKFDTRQSAG 32
DB 337 LFGQYRTPIGKTLFQWHDSSG 360

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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:47:06 ; Search time 103 Seconds
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Title: US-10-632-366-2

Sequence: 1 DVSTSQAVLPDDFPRYPVGKFKFDTWRSAGRL 34

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Listing first 45 summaries

Database : Published Applications_AA_Main:*

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- 2: /EMC_Celerra_SIDS3/ProdData/2/pubppaa/US08_PUBCOMB.pep:*
- 3: /EMC_Celerra_SIDS3/ProdData/2/pubppaa/US09_PUBCOMB.pep:*
- 4: /EMC_Celerra_SIDS3/ProdData/2/pubppaa/US10_PUBCOMB.pep:*
- 5: /EMC_Celerra_SIDS3/ProdData/2/pubppaa/US108_PUBCOMB.pep:*
- 6: /EMC_Celerra_SIDS3/ProdData/2/pubppaa/US11_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	184	100.0	34	3	US-09-745-078A-3
2	184	100.0	34	4	US-10-374-624-3
3	184	100.0	34	4	US-10-632-366-2
4	184	100.0	180	4	US-10-258-666-2
5	177	96.2	34	3	US-09-745-078A-4
6	177	96.2	34	4	US-10-374-624-4
7	177	96.2	34	4	US-10-632-366-3
8	177	96.2	351	4	US-10-388-838-107
9	142	77.2	34	3	US-09-745-078A-2
10	142	77.2	34	4	US-10-374-624-2
11	142	77.2	34	4	US-10-632-366-1
12	142	77.2	35	6	US-11-066-697-381
13	142	77.2	156	3	US-09-972-809-7
14	142	77.2	156	5	US-10-872-198-122
15	142	77.2	156	6	US-11-021-951-122
16	142	77.2	176	4	US-10-388-838-112
17	142	77.2	180	4	US-10-081-119-38
18	142	77.2	180	4	US-10-136-841-2
19	142	77.2	180	4	US-10-097-340-145
20	142	77.2	180	4	US-10-295-027-199
21	142	77.2	180	4	US-10-272-531A-2
22	142	77.2	180	4	US-10-173-999-99
23	142	77.2	180	4	US-10-272-483A-2
24	142	77.2	180	4	US-10-443-466A-21
25	142	77.2	180	4	US-10-188-832-84
26	142	77.2	180	4	US-10-700-725-19
27	142	77.2	180	4	US-10-706-791-5

28	142	77.2	180	4	US-10-770-668-46	Sequence 46, Appl
29	142	77.2	180	5	US-10-741-600-1133	Sequence 1133, Ap
30	142	77.2	180	5	US-10-951-389-38	Sequence 38, Appl
31	142	77.2	180	5	US-10-951-406-38	Sequence 38, Appl
32	142	77.2	180	5	US-10-951-477-38	Sequence 38, Appl
33	142	77.2	180	5	US-10-977-087-38	Sequence 38, Appl
34	142	77.2	180	5	US-10-981-267-2	Sequence 2, Appl
35	142	77.2	180	6	US-11-049-518-18	Sequence 18, Appl
36	142	77.2	180	6	US-11-050-926-145	Sequence 145, App
37	142	77.2	275	5	US-10-821-234-971	Sequence 971, App
38	138	75.0	33	3	US-09-745-078A-5	Sequence 5, Appl
39	138	75.0	33	4	US-10-374-624-5	Sequence 5, Appl
40	136	73.9	1107	6	US-11-057-068-41	Sequence 41, Appl
41	135	73.4	30	3	US-09-745-078A-8	Sequence 8, Appl
42	135	73.4	30	4	US-10-374-624-8	Sequence 8, Appl
43	135	73.4	31	4	US-09-745-078A-7	Sequence 7, Appl
44	135	73.4	31	4	US-10-374-624-7	Sequence 7, Appl
45	135	73.4	32	3	US-09-745-078A-6	Sequence 6, Appl

ALIGNMENTS

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RESULT 1
US-09-745-078A-3
; Sequence 3, Application US/09745078A
; Publication No. US20030050434A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 441842000100
; CURRENT APPLICATION NUMBER: US/09/745, 078A
; PRIOR FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FASTSEQ for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Rattus Sp.
; FEATURE:
; OTHER INFORMATION: Preptin
US-09-745-078A-3

Query Match      100.0%; Score 184; DB 3; Length 34;
Best Local Similarity 100.0%; Pred. No. 2.8e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDFPRYPVGKFKFDTWRSAGRL 34
Db      1 DVSTSQAVLPDDFPRYPVGKFKFDTWRSAGRL 34

RESULT 2
US-10-374-624-3
; Sequence 3, Application US/10374624
; Publication No. US2003016651A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 441842000100
; CURRENT APPLICATION NUMBER: US/10/374, 624
; PRIOR FILING DATE: 2003-02-24
; PRIOR APPLICATION NUMBER: US/09/745, 078A
; PRIOR FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
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; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FaastSeq for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Rattus sp.
; FEATURE:
; OTHER INFORMATION: Preptin
US-10-374-624-3

Query Match          100.0%; Score 184; DB 4; Length 34;
Best Local Similarity 100.0%; Pred. No. 2.8e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDPPRYPVGKFFKFDTWRSAGRL 34
Db      1 DVSTSQAVLPDDPPRYPVGKFFKFDTWRSAGRL 34

RESULT 3
US-10-632-366-2
; Sequence 2, Application US/10632366
; Publication No. US20040142393A1
; GENERAL INFORMATION:
; APPLICANT: COOPER, GARTH JAMES SMITH
; APPLICANT: BUCHANAN, CHRISTINE MAREE
; APPLICANT: JAMES, GABRIEL CHRISTOPHER
; TITLE OF INVENTION: METHODS OF USE OF COMPOUNDS WITH PREPTIN FUNCTION
; FILE REFERENCE: 49123.000033.UTL1
; CURRENT APPLICATION NUMBER: US/10/632,366
; PRIOR FILING DATE: 2003-07-31
; PRIOR APPLICATION NUMBER: 60/400,445
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-10-632-366-2

Query Match          100.0%; Score 184; DB 4; Length 34;
Best Local Similarity 100.0%; Pred. No. 2.8e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDPPRYPVGKFFKFDTWRSAGRL 34
Db      1 DVSTSQAVLPDDPPRYPVGKFFKFDTWRSAGRL 34

RESULT 4
US-10-258-666-2
; Sequence 2, Application US/10258666
; Publication No. US20040005578A1
; GENERAL INFORMATION:
; APPLICANT: Yamada, Yoji
; APPLICANT: Sekine, Yasumu
; APPLICANT: Kikuchi, Yasuhiro
; APPLICANT: Sakurada, Kazuhiro
; APPLICANT: Kyowa Hakko Kogyo Co., Ltd.
; TITLE OF INVENTION: Myocardial Cell Proliferation-Associated Genes
; FILE REFERENCE: 082382-000000US
; CURRENT APPLICATION NUMBER: US/10/258,666
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: JP 2000-126741
; PRIOR FILING DATE: 2000-04-27
; PRIOR APPLICATION NUMBER: WO PCT/JP01/03700
; NUMBER OF SEQ ID NOS: 42
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
; LENGTH: 180
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; TYPE: PRT
; ORGANISM: Rattus norvegicus
; FEATURE:
; OTHER INFORMATION: RHDH-009, IGF-II
US-10-258-666-2

Query Match          100.0%; Score 184; DB 4; Length 180;
Best Local Similarity 100.0%; Pred. No. 1.7e-18;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDPPRYPVGKFFKFDTWRSAGRL 34
Db      93 DVSTSQAVLPDDPPRYPVGKFFKFDTWRSAGRL 126

RESULT 5
US-09-745-078A-4
; Sequence 4, Application US/09745078A
; Publication No. US20030050434A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 441842000100
; CURRENT APPLICATION NUMBER: US/09/745,078A
; PRIOR FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FaastSeq for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Mus Musculus
; FEATURE:
; OTHER INFORMATION: Preptin
US-09-745-078A-4

Query Match          96.2%; Score 177; DB 3; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.9e-18;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDPPRYPVGKFFKFDTWRSAGRL 34
Db      1 DVSTSQAVLPDDPPRYPVGKFFOYDTWRSAGRL 34

RESULT 6
US-10-374-624-4
; Sequence 4, Application US/10374624
; Publication No. US20030166561A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 441842000100
; CURRENT APPLICATION NUMBER: US/10/374,624
; PRIOR FILING DATE: 2003-02-24
; PRIOR APPLICATION NUMBER: US/09/745,078A
; PRIOR FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FaastSeq for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Mus Musculus
; FEATURE:
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OTHER INFORMATION: Preptin
US-10-374-624-4

Query Match 96.2%; Score 177; DB 4; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.9e-18;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVGKFKFDTWROSAGRL 34
DB 1 DVSTSOAVLPDDPPRYVGVGKFKFDTWROSAGRL 34

RESULT 7
US-10-632-366-3

; Sequence 3, Application US/10632366
; Publication No. US20040142393A1
; GENERAL INFORMATION:
; APPLICANT: COOPER, GARTH JAMES SMITH
; APPLICANT: BUCHANAN, CHRISTINE MARIE
; APPLICANT: JAMES, GABRIEL CHRISTOPHER
; TITLE OF INVENTION: METHODS OF USE OF COMPOUNDS WITH PREPTIN FUNCTION
; FILE REFERENCE: 49123.000033.UTL1
; CURRENT APPLICATION NUMBER: US/10/632.366
; PRIOR FILING DATE: 2003-07-31
; PRIOR APPLICATION NUMBER: 60/400,445
; PRIOR FILING DATE: 2002-08-01
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 3
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-632-366-3

Query Match 96.2%; Score 177; DB 4; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.9e-18;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVGKFKFDTWROSAGRL 34
DB 1 DVSTSOAVLPDDPPRYVGVGKFKFDTWROSAGRL 34

RESULT 8

US-10-388-838-107
; Sequence 107, Application US/10388838
; Publication No. US20040180344A1
; GENERAL INFORMATION:
; APPLICANT: David W. Morris
; APPLICANT: Marc Malandro
; TITLE OF INVENTION: Novel Therapeutic Targets in Cancer
; FILE REFERENCE: 529452001600
; CURRENT APPLICATION NUMBER: US/10/388.838
; CURRENT FILING DATE: 2003-03-14
; NUMBER OF SEQ ID NOS: 114
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 107
; LENGTH: 351
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-388-838-107

Query Match 96.2%; Score 177; DB 4; Length 351;
Best Local Similarity 94.1%; Pred. No. 3.7e-17;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVGKFKFDTWROSAGRL 34
DB 264 DVSTSOAVLPDDPPRYVGVGKFKFDTWROSAGRL 297

RESULT 9
US-09-745-078A-2

; Sequence 2, Application US/09745078A
; Publication No. US20030050434A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 441842000100
; CURRENT APPLICATION NUMBER: US/09/745.078A
; PRIOR FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo Sapien
; OTHER INFORMATION: Preptin
US-09-745-078A-2

Query Match 77.2%; Score 142; DB 3; Length 34;
Best Local Similarity 73.5%; Pred. No. 3.8e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVGKFKFDTWROSAGRL 34
DB 1 DVSTPPTVLDPDNFPRYPVGVGKFKFDTWKOSTORL 34

RESULT 10
US-10-374-624-2

; Sequence 2, Application US/10374624
; Publication No. US20030166561A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 441842000100
; CURRENT APPLICATION NUMBER: US/10/374.624
; CURRENT FILING DATE: 2003-02-24
; PRIOR APPLICATION NUMBER: US/09/745.078A
; PRIOR FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo Sapien
; OTHER INFORMATION: Preptin
US-10-374-624-2

Query Match 77.2%; Score 142; DB 4; Length 34;
Best Local Similarity 73.5%; Pred. No. 3.8e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVGKFKFDTWROSAGRL 34
DB 1 DVSTPPTVLDPDNFPRYPVGVGKFKFDTWKOSTORL 34

RESULT 11
US-10-632-366-1
; Sequence 1, Application US/10632366
; Publication No. US20040142393A1
; GENERAL INFORMATION:

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; APPLICANT: COOPER, GARTH JAMES SMITH
; APPLICANT: BUCHANAN, CHRISTINE MARIE
; APPLICANT: JAMES, GABRIEL CHRISTOPHER
; TITLE OF INVENTION: METHODS OF USE OF COMPOUNDS WITH PREPTIN FUNCTION
; FILE REFERENCE: 49123.000033.UPL1
; CURRENT APPLICATION NUMBER: US/10/632,366
; CURRENT FILING DATE: 2003-07-31
; PRIOR APPLICATION NUMBER: 60/400,445
; PRIOR FILING DATE: 2002-08-01
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-632-366-1
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Query Match          77.2%; Score 142; DB 4; Length 34;
Best Local Similarity 73.5%; Pred. No. 3.8e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;
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QY      1 DVSTSQAVLPDDPPRYVGVGKFFKFDTWRSAGRL 34
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Db      1 DVSTPPTVLPDNPFRYPVGVGKFFQYDTWKQSTQRL 34
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RESULT 12
US-11-066-697-381
; Sequence 381, Application US/11066697
; Publication No. US20050187159A1
; GENERAL INFORMATION:
; APPLICANT: Bridon, Dominique P.
; APPLICANT: Ezrin, Alan M.
; APPLICANT: Milner, Peter G.
; APPLICANT: Holmes, Darren L.
; APPLICANT: Tribudeau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 500862002301
; CURRENT APPLICATION NUMBER: US/11/066,697
; CURRENT FILING DATE: 2005-02-25
; PRIOR APPLICATION NUMBER: 09/657,276
; PRIOR FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-15
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 381
; LENGTH: 35
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
; US-11-066-697-381
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Query Match          77.2%; Score 142; DB 6; Length 35;
Best Local Similarity 73.5%; Pred. No. 3.9e-13;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;
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```
QY      1 DVSTSQAVLPDDPPRYVGVGKFFKFDTWRSAGRL 34
      |||||:|||||:|||||:|||||:|||||:|||||:
Db      2 DVSTPPTVLPDNPFRYPVGVGKFFQYDTWKQSTQRL 35
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RESULT 13
US-09-972-809-7
; Sequence 7, Application US/09972809
; Patent No. US2002015190A1
; GENERAL INFORMATION:
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; APPLICANT: Sundeed, Khosla
; APPLICANT: Conover, Cheryl A.
; TITLE OF INVENTION: TREATMENT OF OSTEOPOROSIS
; FILE REFERENCE: 07039/183001
; CURRENT APPLICATION NUMBER: US/09/972,809
; CURRENT FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: 09/428,226
; PRIOR FILING DATE: 1999-10-27
; PRIOR APPLICATION NUMBER: 60/045,607
; PRIOR FILING DATE: 1997-05-05
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 156
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-972-809-7
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Query Match          77.2%; Score 142; DB 3; Length 156;
Best Local Similarity 73.5%; Pred. No. 2e-12;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;
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Db      69 DVSTPPTVLPDNPFRYPVGVGKFFQYDTWKQSTQRL 102
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RESULT 14
US-10-872-198-122
; Sequence 122, Application US/10872198
; Publication No. US20050002897A1
; GENERAL INFORMATION:
; APPLICANT: Ulrich HAUPTS
; APPLICANT: Andre KOLTERMANN
; APPLICANT: Andreas SCHEIDIG
; APPLICANT: Christian VOETSMERIER
; APPLICANT: Ulrich Ketting
; TITLE OF INVENTION: NEW BIOLOGICAL ENTITIES AND USE THEREOF
; FILE REFERENCE: 04156.000204
; CURRENT APPLICATION NUMBER: US/10/872,198
; CURRENT FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 60/543,518
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/524,960
; PRIOR FILING DATE: 2003-11-25
; PRIOR APPLICATION NUMBER: EP 04003058
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: EP 03025871
; PRIOR FILING DATE: 2003-11-11
; PRIOR APPLICATION NUMBER: EP 03025851
; PRIOR FILING DATE: 2003-11-10
; PRIOR APPLICATION NUMBER: EP 03013819
; PRIOR FILING DATE: 2003-06-18
; NUMBER OF SEQ ID NOS: 149
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 122
; LENGTH: 156
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-872-198-122
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Query Match          77.2%; Score 142; DB 5; Length 156;
Best Local Similarity 73.5%; Pred. No. 2e-12;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;
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QY      1 DVSTSQAVLPDDPPRYVGVGKFFKFDTWRSAGRL 34
      |||||:|||||:|||||:|||||:|||||:|||||:
Db      69 DVSTPPTVLPDNPFRYPVGVGKFFQYDTWKQSTQRL 102
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RESULT 15
US-11-021-951-122
; Sequence 122, Application US/11021951
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; Publication No. US20050175581A1
; GENERAL INFORMATION:
; APPLICANT: HAUPTS, Ulrich
; APPLICANT: KOLTERMANN, Andre
; APPLICANT: SCHEIDIG, Andreas
; APPLICANT: VOTSMEIER, Christian
; APPLICANT: Kettling, Ulrich
; APPLICANT: COCO, Wayne Michael
; TITLE OF INVENTION: New Biological Entities And The Pharmaceutical
; FILE OF INVENTION: And Diagnostic Use Thereof
; FILE REFERENCE: 04156.000205
; CURRENT APPLICATION NUMBER: US/11/021,951
; CURRENT FILING DATE: 2004-12-22
; PRIOR APPLICATION NUMBER: 10/872,198
; PRIOR FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 60/543,518
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/524,960
; PRIOR FILING DATE: 2003-11-25
; PRIOR APPLICATION NUMBER: EP 04003058
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: EP 03025871
; PRIOR FILING DATE: 2003-11-11
; PRIOR APPLICATION NUMBER: EP 03025851
; PRIOR FILING DATE: 2003-11-10
; PRIOR APPLICATION NUMBER: EP 03013819
; PRIOR FILING DATE: 2003-06-18
; NUMBER OF SEQ ID NOS: 191
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 122
; LENGTH: 156
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-11-021-951-122

Query Match      77.2%  Score 142; DB 6; Length 156;
Best Local Similarity 73.5%  Pred. No. 2e-12;
Matches 25; Conservative 4; Mismatches 5; Indels 0; Gaps 0;

QY      1  DVSTSQAVLPDDPFRYPVGKFKFEDTWQSGAGRL 34
      |||||:|||||:|||||:|||||:|||||:
Db      69  DVSTPPTVLPDNPFRYPVGKFKFYDTWKQSTQRL 102

Search completed: May 21, 2006, 12:53:42
Job time : 103.333 secs
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GenCore version 5.1.8
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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:48:45 ; Search time 4 Seconds
(without alignments)
18.157 Million cell updates/sec

Title: US-10-632-366-2

Perfect score: 184

Sequence: 1 DVSTSQAVLPDDPRYPVGKFKFDTRQSGRL 34

Scoring table:

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Gapop 10.0 , Gapext 0.5

Searched: 21570 seqs, 2136119 residues

Total number of hits satisfying chosen parameters: 21570

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Published Applications AA New:*

- 1: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US09_NEW_PUB.pep:*
- 2: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US06_NEW_PUB.pep:*
- 3: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US07_NEW_PUB.pep:*
- 4: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US08_NEW_PUB.pep:*
- 5: /EMC_Celerra_SIDS3/prodata/2/pubppaa/PCT_NEW_PUB.pep:*
- 6: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US10_NEW_PUB.pep:*
- 7: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US11_NEW_PUB.pep:*
- 8: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US60_NEW_PUB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	43.5	23.6	477	7	US-11-264-784-112 Sequence 112, App
2	42	22.8	323	7	US-11-249-111-102 Sequence 102, App
3	41.5	22.6	492	6	US-10-505-928-48 Sequence 48, App1
4	41.5	22.6	531	6	US-10-505-928-408 Sequence 408, App1
5	40	21.7	309	7	US-11-249-111-72 Sequence 72, App1
6	40	21.7	3396	6	US-10-505-928-449 Sequence 449, App
7	39.5	21.5	121	6	US-10-196-749-368 Sequence 368, App
8	39	21.2	1043	6	US-10-511-937-2452 Sequence 2452, App
9	39	21.2	1333	6	US-10-511-937-2992 Sequence 2992, App
10	38.5	20.9	191	7	US-11-267-871-342 Sequence 342, App
11	38.5	20.9	357	7	US-11-301-554-1817 Sequence 1817, App
12	38.5	20.9	1052	6	US-10-497-088-14 Sequence 14, App1
13	38.5	20.9	1342	6	US-10-497-088-14 Sequence 14, App1
14	38	20.7	847	6	US-10-505-928-300 Sequence 300, App
15	37.5	20.4	191	7	US-11-267-871-282 Sequence 282, App
16	37.5	20.4	667	6	US-10-505-928-393 Sequence 393, App
17	37	20.1	109	7	US-11-254-679-13 Sequence 13, App1
18	37	20.1	120	7	US-11-230-593A-33 Sequence 33, App1
19	37	20.1	477	7	US-11-024-544A-118 Sequence 118, App
20	37	20.1	477	7	US-11-024-545-46 Sequence 46, App1
21	37	20.1	477	7	US-11-185-301-34 Sequence 34, App1
22	37	20.1	477	7	US-11-190-750-101 Sequence 101, App
23	37	20.1	477	7	US-11-251-466-20 Sequence 20, App1
24	37	20.1	477	7	US-11-254-173-34 Sequence 34, App1
25	37	20.1	477	7	US-11-264-784-28 Sequence 28, App1

26	37	20.1	640	7	US-11-245-628-27 Sequence 27, App1
27	37	20.1	1871	6	US-10-501-834-26 Sequence 26, App1
28	36.5	19.8	271	6	US-10-511-937-2552 Sequence 2592, App
29	36	19.6	125	7	US-11-219-563-80 Sequence 80, App1
30	36	19.6	488	7	US-11-242-505A-30 Sequence 30, App1
31	36	19.6	527	6	US-10-514-462-5 Sequence 5, App1
32	36	19.6	653	6	US-10-196-749-402 Sequence 402, App
33	36	19.6	1067	6	US-10-514-462-2 Sequence 2, App1
34	36	19.6	2026	6	US-10-505-928-831 Sequence 831, App
35	35.5	19.3	191	7	US-11-267-871-340 Sequence 340, App
36	35.5	19.3	191	7	US-11-267-871-343 Sequence 343, App
37	35.5	19.3	252	6	US-10-196-749-302 Sequence 302, App
38	35.5	19.3	252	7	US-11-101-316-92 Sequence 92, App1
39	35.5	19.3	291	7	US-11-154-103-9 Sequence 9, App1
40	35.5	19.3	439	7	US-11-242-111-25 Sequence 25, App1
41	35.5	19.3	1186	6	US-10-511-937-2566 Sequence 2566, App
42	35	19.0	123	7	US-11-254-182-34 Sequence 34, App1
43	35	19.0	194	6	US-10-505-928-791 Sequence 791, App
44	35	19.0	325	6	US-10-511-937-2979 Sequence 2979, App
45	35	19.0	332	7	US-11-246-999-32 Sequence 32, App1

ALIGNMENTS

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RESULT 1
US-11-264-784-112
; Sequence 112, Application US/11264784
; Publication No. US20060094092A1
; GENERAL INFORMATION:
; APPLICANT: E.I. duPont de Nemours & Co., Inc.
; APPLICANT: Damde, Howard Glenn
; APPLICANT: Gillies, Peter John
; APPLICANT: Macool, Daniel Joseph
; APPLICANT: Picataggio, Stephen K.
; APPLICANT: Pollak, Dana M. Walters
; APPLICANT: Ragghianti, James John
; APPLICANT: Xue, Zhixiong
; APPLICANT: Yadav, Narendra S.
; APPLICANT: Zhang, Hongxiang
; APPLICANT: Zhu, Qiumin
; TITLE OF INVENTION: HIGH ARACHIDONIC ACID PRODUCING STRAINS OF YARROWIA LIPOLYTICA
; FILE REFERENCE: CL3136 USA
; CURRENT APPLICATION NUMBER: US/11/264,784
; CURRENT FILING DATE: 2005-11-01
; NUMBER OF SEQ ID NOS: 375
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 112
; LENGTH: 477
; TYPE: PRT
; ORGANISM: Saccharomyces cerevisiae (GenBank Accession No. NP_010935)
US-11-264-784-112

Query Match      23.6%  Score 43.5; DB 7; Length 477;
Best Local Similarity 34.8%; Pred. No. 22;
Matches      8; Conservative      6; Mismatches      8; Indels      1; Gaps      1;

QY      5  SQAVLPDDPRYPVGKFKFDTR 27
Db      26  TNAMSDNKAYSI-KELTFNTW 47

RESULT 2
US-11-249-111-102
; Sequence 102, Application US/11249111
; Publication No. US20060099623A1
; GENERAL INFORMATION:
; APPLICANT: Glenn, Matthew
; APPLICANT: Lubbers, Mark W
; APPLICANT: Dekker, James
; TITLE OF INVENTION: Polynucleotides and polypeptides isolated from Lactobacillus
; TITLE OF INVENTION: and methods for their use.
; FILE REFERENCE: 13353.1048uc2
```

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; CURRENT APPLICATION NUMBER: US/11/249,111
; CURRENT FILING DATE: 2005-10-11
; PRIOR APPLICATION NUMBER: 10/288,930
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 09/724,623
; PRIOR FILING DATE: 2000-11-28
; PRIOR APPLICATION NUMBER: 60/148,801
; PRIOR FILING DATE: 1999-12-02
; NUMBER OF SEQ ID NOS: 124
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 102
; LENGTH: 323
; TYPE: PRT
; ORGANISM: Lactobacillus rhamnosus
US-11-249-111-102

Query Match          22.6%; Score 42; DB 7; Length 323;
Best Local Similarity 37.5%; Pred. No. 24;
Matches 9; Conservative 4; Mismatches 11; Indels 0; Gaps 0;

QY      2 VSTSOAVLPDDPRYPVGKFKFD 25
Db      7 ISATQHHPDCCQIPGDFSFSD 30

RESULT 3
US-10-505-928-48
; Sequence 48, Application US/10505928
; Publication No. US20060088532A1
; GENERAL INFORMATION:
; APPLICANT: Ludwig Institute for Cancer Research et al.
; TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
; FILE REFERENCE: 28967/39178
; CURRENT APPLICATION NUMBER: US/10/505,928
; CURRENT FILING DATE: 2004-08-27
; PRIOR APPLICATION NUMBER: US 60/363,019
; PRIOR FILING DATE: 2002-03-07
; NUMBER OF SEQ ID NOS: 866
; SOFTWARE: PatentIn 3.2
; SEQ ID NO 48
; LENGTH: 492
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: KIAA0062
US-10-505-928-48

Query Match          22.6%; Score 41.5; DB 6; Length 492;
Best Local Similarity 45.0%; Pred. No. 44;
Matches 9; Conservative 6; Mismatches 4; Indels 1; Gaps 1;

QY      2 VSTSOAVLPDDPRYPVGKFKFD 21
Db      367 ISTSVAILCEEP-HELGDG 385

RESULT 4
US-10-505-928-408
; Sequence 408, Application US/10505928
; Publication No. US20060088532A1
; GENERAL INFORMATION:
; APPLICANT: Ludwig Institute for Cancer Research et al.
; TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
; FILE REFERENCE: 28967/39178
; CURRENT APPLICATION NUMBER: US/10/505,928
; CURRENT FILING DATE: 2004-08-27
; PRIOR APPLICATION NUMBER: US 60/363,019
; PRIOR FILING DATE: 2002-03-07
; NUMBER OF SEQ ID NOS: 866
; SOFTWARE: PatentIn 3.2
; SEQ ID NO 408
; LENGTH: 531
; TYPE: PRT

; ORGANISM: Homo sapiens
US-10-505-928-408

Query Match          22.6%; Score 41.5; DB 6; Length 531;
Best Local Similarity 45.0%; Pred. No. 47;
Matches 9; Conservative 6; Mismatches 4; Indels 1; Gaps 1;

QY      2 VSTSOAVLPDDPRYPVGKFKFD 21
Db      406 ISTSVAILCEEP-HELGDG 424

RESULT 5
US-11-249-111-72
; Sequence 72, Application US/11249111
; Publication No. US2006009623A1
; GENERAL INFORMATION:
; APPLICANT: Glenn, Matthew
; APPLICANT: Lubbers, Mark W
; APPLICANT: Dekker, James
; TITLE OF INVENTION: Polynucleotides and polypeptides isolated from Lactobacillus
; FILE REFERENCE: 13353.1048ulc2
; CURRENT APPLICATION NUMBER: US/11/249,111
; CURRENT FILING DATE: 2005-10-11
; PRIOR APPLICATION NUMBER: 10/288,930
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 09/724,623
; PRIOR FILING DATE: 2000-11-28
; PRIOR APPLICATION NUMBER: 60/148,801
; PRIOR FILING DATE: 1999-12-02
; NUMBER OF SEQ ID NOS: 124
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 72
; LENGTH: 309
; TYPE: PRT
; ORGANISM: Lactobacillus rhamnosus
US-11-249-111-72

Query Match          21.7%; Score 40; DB 7; Length 309;
Best Local Similarity 50.0%; Pred. No. 43;
Matches 9; Conservative 1; Mismatches 8; Indels 0; Gaps 0;

QY      8 VLPDDPRYPVGKFKFD 25
Db      291 VAPDNGERYLSTDLFKFD 308

RESULT 6
US-10-505-928-449
; Sequence 449, Application US/10505928
; Publication No. US20060088532A1
; GENERAL INFORMATION:
; APPLICANT: Ludwig Institute for Cancer Research et al.
; TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
; FILE REFERENCE: 28967/39178
; CURRENT APPLICATION NUMBER: US/10/505,928
; CURRENT FILING DATE: 2004-08-27
; PRIOR APPLICATION NUMBER: US 60/363,019
; PRIOR FILING DATE: 2002-03-07
; NUMBER OF SEQ ID NOS: 866
; SOFTWARE: PatentIn 3.2
; SEQ ID NO 449
; LENGTH: 396
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-505-928-449

Query Match          21.7%; Score 40; DB 6; Length 396;
Best Local Similarity 44.4%; Pred. No. 5; 7e+02;
Matches 8; Conservative 3; Mismatches 5; Indels 2; Gaps 1;
```

Db 390 VITERP--PVGNVSFE 405

RESULT 7

US-10-196-749-368
; Sequence 368, Application US/10196749
; Publication No. US20060094864A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Chen, Jian
; APPLICANT: Desnoyers, Luc
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Pan, James
; APPLICANT: Smith, Victoria
; APPLICANT: Watanabe, Colin K.
; APPLICANT: Wood, William I.
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; FILE REFERENCE: P3430R1C340
; CURRENT FILING DATE: 2002-07-16
; PRIOR APPLICATION NUMBER: 10/052586
; PRIOR FILING DATE: 2002-01-15
; PRIOR APPLICATION NUMBER: 60/059263
; PRIOR FILING DATE: 1997-09-18
; PRIOR APPLICATION NUMBER: 60/059266
; PRIOR FILING DATE: 1997-09-18
; PRIOR APPLICATION NUMBER: 60/062250
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/063120
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/063121
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/063486
; PRIOR FILING DATE: 1997-10-21
; PRIOR APPLICATION NUMBER: 60/063540
; PRIOR FILING DATE: 1997-10-28
; PRIOR APPLICATION NUMBER: 60/063541
; PRIOR FILING DATE: 1997-10-28
; PRIOR APPLICATION NUMBER: 60/063544
; PRIOR FILING DATE: 1997-10-28
; PRIOR APPLICATION data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 612
; SEQ ID NO 368
; LENGTH: 121
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-196-749-368

Query Match 21.5%; Score 39.5; DB 6; Length 121;
Best Local Similarity 40.0%; Pred. No. 18;
Matches 10; Conservative 2; Mismatches 8; Indels 5; Gaps 1;

QY 7 AVLPPDPFPPYVGKFFKFDTRQSA 31
DB 21 AVLTDVDPQEPVPTL-----MNEPA 40

RESULT 8

US-10-511-937-2452
; Sequence 2452, Application US/10511937
; Publication No. US2006008836A1
; GENERAL INFORMATION:
; APPLICANT: EXPRESSION DIAGNOSTICS, INC.
; APPLICANT: Wohlgenuth, Jay
; APPLICANT: Fry, Kirk
; APPLICANT: Woodward, Robert
; APPLICANT: Ly, Ngoc
; APPLICANT: Prentice, James

; APPLICANT: Morris, MacDonald
; APPLICANT: Rosenberg, Steven
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR DIAGNOSING
; TITLE OF INVENTION: AND MONITORING TRANSPLANT REJECTION
; FILE REFERENCE: 506612000104
; CURRENT FILING DATE: 2004-10-19
; PRIOR APPLICATION NUMBER: PCT/US2003/012946
; PRIOR FILING DATE: 2003-04-24
; PRIOR APPLICATION NUMBER: US 10/131,831
; PRIOR FILING DATE: 2002-04-24
; PRIOR APPLICATION NUMBER: US 10/325,899
; PRIOR FILING DATE: 2002-12-20
; NUMBER OF SEQ ID NOS: 3117
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2452
; LENGTH: 1043
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-511-937-2452

Query Match 21.2%; Score 39; DB 6; Length 1043;
Best Local Similarity 38.1%; Pred. No. 2.2e+02;
Matches 8; Conservative 5; Mismatches 8; Indels 0; Gaps 0;

QY 11 DDEPRYPVGKFFKFDTRQSA 31
DB 549 DDYVDVTDIAKFRFYDSALVSA 569

RESULT 9

US-10-511-937-2992
; Sequence 2992, Application US/10511937
; Publication No. US2006008836A1
; GENERAL INFORMATION:
; APPLICANT: EXPRESSION DIAGNOSTICS, INC.
; APPLICANT: Wohlgenuth, Jay
; APPLICANT: Fry, Kirk
; APPLICANT: Woodward, Robert
; APPLICANT: Ly, Ngoc
; APPLICANT: Prentice, James
; APPLICANT: Morris, MacDonald
; APPLICANT: Rosenberg, Steven
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR DIAGNOSING
; TITLE OF INVENTION: AND MONITORING TRANSPLANT REJECTION
; FILE REFERENCE: 506612000104
; CURRENT FILING DATE: 2004-10-19
; PRIOR APPLICATION NUMBER: PCT/US2003/012946
; PRIOR FILING DATE: 2003-04-24
; PRIOR APPLICATION NUMBER: US 10/131,831
; PRIOR FILING DATE: 2002-04-24
; PRIOR APPLICATION NUMBER: US 10/325,899
; PRIOR FILING DATE: 2002-12-20
; NUMBER OF SEQ ID NOS: 3117
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2992
; LENGTH: 1333
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-511-937-2992

Query Match 21.2%; Score 39; DB 6; Length 1333;
Best Local Similarity 50.0%; Pred. No. 2.9e+02;
Matches 7; Conservative 3; Mismatches 4; Indels 0; Gaps 0;

QY 3 STSQAVLPDPFPPY 16
DB 587 ASGEAVYCDIPRY 600

RESULT 10

US-11-267-871-342

```
; Sequence 342, Application US/11267871
; Publication No. US20060094655A1
; GENERAL INFORMATION:
; APPLICANT: Guyon, Thierry
; APPLICANT: Borrelli, Gilles
; APPLICANT: Driteanti, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: MODIFIED GROWTH HORMONES
; FILE REFERENCE: 17109-015001/925
; CURRENT APPLICATION NUMBER: US/11/267,871
; CURRENT FILING DATE: 2005-11-03
; PRIOR APPLICATION NUMBER: 60/706,697
; PRIOR FILING DATE: 2005-08-08
; PRIOR APPLICATION NUMBER: 60/625,652
; PRIOR FILING DATE: 2004-11-04
; NUMBER OF SEQ ID NOS: 719
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 342
; LENGTH: 191
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-11-267-871-342

Query Match      20.9%; Score 38.5; DB 7; Length 191;
Best Local Similarity 40.0%; Pred. No. 42;
Matches 12; Conservative 2; Mismatches 9; Indels 7; Gaps 2;

QY      2 VSTSOAVLPDDPPRYPVGKFF-----KFDPT 26
Db      121 IQTSMGRLEDSGR--TGGQFFKQTYSKFDP 148

RESULT 11
US-11-301-554-1817
; Sequence 1817, Application US/11301554
; Publication No. US20060088527A1
; GENERAL INFORMATION:
; APPLICANT: Henderson, Robert A.
; APPLICANT: Wang, Tonglong
; APPLICANT: Matanabe, Yoshihiro
; APPLICANT: Kalos, Michael D.
; APPLICANT: Sleach, Paul R.
; APPLICANT: Johnson, Jeffrey C.
; APPLICANT: Retler, Marc W.
; APPLICANT: Durham, Margarita
; APPLICANT: Carter, Darrick
; APPLICANT: Fanger, Gary R.
; APPLICANT: Vedvick, Thomas S.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: McNabb, Andria
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.478C21
; CURRENT APPLICATION NUMBER: US/11/301,554
; CURRENT FILING DATE: 2005-12-13
; PRIOR APPLICATION NUMBER: US 10/283,017
; PRIOR FILING DATE: 2002-10-28
; PRIOR APPLICATION NUMBER: US 10/113,872
; PRIOR FILING DATE: 2002-03-28
; PRIOR APPLICATION NUMBER: US 10/017,754
; PRIOR FILING DATE: 2001-10-29
; PRIOR APPLICATION NUMBER: US 09/902,941
; PRIOR FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: US 09/849,626
; PRIOR FILING DATE: 2001-05-03
; PRIOR APPLICATION NUMBER: US 09/736,457
; PRIOR FILING DATE: 2000-12-13
; PRIOR APPLICATION NUMBER: US 09/702,705
; PRIOR FILING DATE: 2000-10-30
; PRIOR APPLICATION NUMBER: US 09/677,419
; PRIOR FILING DATE: 2000-10-06
; PRIOR APPLICATION NUMBER: US 09/671,325
; PRIOR FILING DATE: 2000-09-26
```

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; PRIOR APPLICATION NUMBER: US 09/658,824
; PRIOR FILING DATE: 2000-09-08
; Remaining Prior Application data removed - See file wrapper or PALM.
; NUMBER OF SEQ ID NOS: 2157
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1817
; LENGTH: 357
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-301-554-1817

Query Match      20.9%; Score 38.5; DB 7; Length 357;
Best Local Similarity 42.9%; Pred. No. 82;
Matches 9; Conservative 2; Mismatches 9; Indels 1; Gaps 1;

QY      13 PPRYPVGKFKPDTPWQSGR 33
Db      294 PPTYPVG--FAMYFVGHDGGR 313

RESULT 12
US-10-497-088-21
; Sequence 21, Application US/10497088
; Publication No. US20060088520A1
; GENERAL INFORMATION:
; APPLICANT: Crucell Holland B.V.
; APPLICANT: Logtenberg, Ton
; APPLICANT: Logtenberg, Ton
; APPLICANT: Lekkertker, Annemarie N
; TITLE OF INVENTION: Antigen presenting cell targeting conjugate, an antigen
; TITLE OF INVENTION: vaccination cell contacted with such conjugate, their use for
; TITLE OF INVENTION: vaccination or as medicament, and methods for their production
; TITLE OF INVENTION: generation
; FILE REFERENCE: 0070 US 00 CON
; CURRENT APPLICATION NUMBER: US/10/497,088
; CURRENT FILING DATE: 2004-05-28
; PRIOR APPLICATION NUMBER: PCT/EP01/14255
; PRIOR FILING DATE: 2001-11-30
; PRIOR APPLICATION NUMBER: PCT/EP02/13681
; PRIOR FILING DATE: 2002-11-29
; PRIOR APPLICATION NUMBER: EP01204997.9
; PRIOR FILING DATE: 2001-12-19
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 21
; LENGTH: 1052
; TYPE: PRT
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: MatCD16-Cgamma4-WAGS-1
; NAME/KEY: misc.feature
; LOCATION: (546)..(546)
; OTHER INFORMATION: Xaa can be any naturally occurring amino acid
US-10-497-088-21

Query Match      20.9%; Score 38.5; DB 6; Length 1052;
Best Local Similarity 34.2%; Pred. No. 2,6e+02;
Matches 13; Conservative 3; Mismatches 13; Indels 9; Gaps 2;

QY      1 DVSTSOAVL-----PDDPPRYPVGK---FFKFDTPWQ 29
Db      94 DSTSTAYWELRSRSDTAYVYCARASLYSKFDYWGQ 131

RESULT 13
US-10-497-088-14
; Sequence 14, Application US/10497088
; Publication No. US20060088520A1
; GENERAL INFORMATION:
; APPLICANT: Crucell Holland B.V.
; APPLICANT: Germeaad, Wilfred
; APPLICANT: Logtenberg, Ton
```

```

; APPLICANT: Lekkerkerker, Annemarie N
; TITLE OF INVENTION: Antigen presenting cell targeting conjugate, an antigen
; TITLE OF INVENTION: presenting cell contacted with such conjugate, their use for
; TITLE OF INVENTION: vaccination or as medicament, and methods for their production
; FILE REFERENCE: 0070 US 00 CON
; CURRENT APPLICATION NUMBER: US/10/497,088
; PRIOR FILING DATE: 2004-05-28
; PRIOR APPLICATION NUMBER: PCT/EP01/14255
; PRIOR FILING DATE: 2001-11-30
; PRIOR APPLICATION NUMBER: PCT/EP02/13681
; PRIOR FILING DATE: 2002-11-29
; PRIOR APPLICATION NUMBER: EP01204997.9
; PRIOR FILING DATE: 2001-12-19
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 14
; LENGTH: 1342
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: MatDC16-Cgamma4-WAG6-A1
; NAME/KEY: MISC FEATURE
; LOCATION: (836)..(836)
; OTHER INFORMATION: xaa can be any amino acid
US-10-497-088-14

```

```

Query Match          20.9%; Score 38.5; DB 6; Length 1342;
Best Local Similarity 34.2%; Pred. No. 3.4e+02;
Matches 13; Conservative 3; Mismatches 13; Indels 9; Gaps 2;

```

```

QY      1 DVSTSQAVL-----PDDFPRYPVGK--FFKPDTRQ 29
          |||  |||  |||  |||  |||  |||  |||  |||
DB      384 DTSTAYMELRSLRSDPTAVYVCARASLYSKFDYWCQ 421

```

```

RESULT 14
US-10-505-928-300
; Sequence 300, Application US/10505928
; Publication No. US20060088532A1
; GENERAL INFORMATION:
; APPLICANT: Ludwig Institute for Cancer Research et al.
; TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
; FILE REFERENCE: 28967/39178
; CURRENT APPLICATION NUMBER: US/10/505,928
; CURRENT FILING DATE: 2004-08-27
; PRIOR APPLICATION NUMBER: US 60/363,019
; PRIOR FILING DATE: 2002-03-07
; NUMBER OF SEQ ID NOS: 866
; SOFTWARE: PatentIn 3.2
; SEQ ID NO 300
; LENGTH: 847
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-505-928-300

```

```

Query Match          20.7%; Score 38; DB 6; Length 847;
Best Local Similarity 46.7%; Pred. No. 2.5e+02;
Matches 7; Conservative 3; Mismatches 5; Indels 0; Gaps 0;

```

```

QY      4 TSOAVLPDDFPRYPV 18
          |||  |||  |||  |||
DB      376 TNHTVLPALERMPV 390

```

```

RESULT 15
US-11-267-871-282
; Sequence 282, Application US/11267871
; Publication No. US20060094655A1
; GENERAL INFORMATION:
; APPLICANT: Guyon, Thierry
; APPLICANT: Borrelly, Gilles

```

```

; APPLICANT: Dittanci, Lila
; APPLICANT: Vega, Manuel
; TITLE OF INVENTION: MODIFIED GROWTH HORMONES
; FILE REFERENCE: 17109-015001/925
; CURRENT APPLICATION NUMBER: US/11/267,871
; CURRENT FILING DATE: 2005-11-03
; PRIOR APPLICATION NUMBER: 60/706,697
; PRIOR FILING DATE: 2005-08-08
; PRIOR APPLICATION NUMBER: 60/625,652
; PRIOR FILING DATE: 2004-11-04
; NUMBER OF SEQ ID NOS: 719
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 282
; LENGTH: 191
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-11-267-871-282

```

```

Query Match          20.4%; Score 37.5; DB 7; Length 191;
Best Local Similarity 26.7%; Pred. No. 58;
Matches 8; Conservative 5; Mismatches 4; Indels 13; Gaps 1;

```

```

QY      13 FPRYPVGKFP-----KPDTRQ 29
          |||  |||  |||  |||  |||  |||  |||  |||
DB      1 FPRTPSLRFDNMLRAHRLHQKFDYQGE 30

```

```

Search completed: May 21, 2006, 12:54:00
Job time : 5 secs

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GenCore version 5.1.8
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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:31:21 ; Search time 120.333 Seconds
(without alignments)
129.186 Million cell updates/sec

Title: US-10-632-366-3

Perfect score: 185
Sequence: 1 DVSTSQAVLPDDFFRYPVGKFFQYDTWRQSAGRL 34

Scoring table

Gapor 10.0 , Gapext 0.5

Searched: 2589679 seqs, 457216429 residues

Total number of hits satisfying chosen parameters: 2589675

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Minimum DB seq length: 0
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Maximum DB seq length: 200000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database

A_GeneSeq_8:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneSeqp2000s: *

4: geneSeqp2001s: *

5: geneSeqp2002s: *

6: [geneSeqp2003as](#):

7: geneSeqp2003bs:

8: geneSeqp2004s:*

9: geneSeqp2005s:*

10: geneseqp2006s:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	185	100.0	34	4	AAB3j1483	Aab3j1483 Amino acid
2	185	100.0	34	8	ADM35843	Adm35843 Mouse pre
3	185	100.0	34	8	ADM96216	Adm96216 Murine pre
4	185	100.0	353	8	ABO84530	AbO84530 Mouse car
5	177	95.7	34	4	AAB3j1482	Aab3j1482 Amino acid
6	177	95.7	34	8	ADM35842	Adm35842 Rat prep
7	177	95.7	34	8	ADM96217	Adm96217 Rat prep
8	177	95.7	180	5	ABB57375	Abb57375 Rat musco
9	177	95.7	180	7	ADD46366	Add46366 Rat Prote
10	150	81.1	34	4	AAB3j1481	Aab3j1481 Amino acid
11	150	81.1	34	8	ADM35841	Adm35841 Human pte
12	150	81.1	34	8	ADM96218	Adm96218 Human pre
13	150	81.1	35	4	AAB9j1207	Aab9j1207 Insulin a
14	150	81.1	155	9	AED58621	Aed58621 Human ins
15	150	81.1	156	9	ADV90292	Adv90292 Protease-
16	150	81.1	180	1	AAP60579	Aap60579 Human pte
17	150	81.1	180	3	AAy70364	Aay70364 Human ins
18	150	81.1	180	5	ABG96345	Abg96345 Human ova
19	150	81.1	180	5	ABP54951	Abp54951 Human IGF
20	150	81.1	180	6	ABR46184	AbR46184 Human bla
21	150	81.1	180	6	AAE33320	Aae33320 Human ins
22	150	81.1	180	7	ABU61624	Abu61624 Human ins
23	150	81.1	180	7	ADB80535	Adb80535 Ovarian c

24	150	81.1	180	7	ADDD46367	AdD46367	Human	Pro
25	150	81.1	180	7	ADN38881	AdN38881	Cancer/An	
26	150	81.1	180	8	ADf47499	Adf47499	Human	IGF
27	150	81.1	180	8	ADH17912	AdH17912	Human	Ins
28	150	81.1	180	8	ADJ58605	AdJ58605	Human	Ins
29	150	81.1	180	8	ADR08576	AdR08576	Human	pro
30	150	81.1	180	8	ADr46399	Adr46399	Human	Ins
31	150	81.1	180	8	AdM81211	Adm81211	Tumour-as	
32	150	81.1	180	8	ADo84532	Ado84532	Human	can
33	150	81.1	180	8	ADQ39470	Adq39470	Human	myo
34	150	81.1	180	9	ADY86802	AdY86802	Human	IGF
35	150	81.1	180	9	ADe89444	AdE89444	Human	Ins
36	150	81.1	180	9	AdD08781	AdD08781	Human	Ins
37	150	81.1	180	10	AEF05090	Aef05090	Human	Ins
38	150	81.1	262	5	ABP69409	Abp69409	Human	pol
39	150	81.1	373	4	AEED74143	Aed74143	Human	pla
40	146	78.9	275	4	ABAB31484	Abab31484	Amino	aci
41	145	78.4	180	1	APAP93525	App93525	Sequence	
42	143	77.3	30	4	ABAB31487	Abb31487	Amino	aci
43	143	77.3	31	4	ABAB31486	Abb31486	Amino	aci
44	143	77.3	32	4	ABAB31485	Abb31485	Amino	aci
45	139	75.1	29	4	AAB31488	Abb31488	Amino	aci

ALIGNMENTS

CC	RESULT 1
CC	AAB31483
CC	ID AAB31483 standard; peptide, 34 AA.
CC	AC
CC	AAB31483;
CC	DT 20-APR-2001 (first entry)
CC	DE Amino acid sequence of mouse preproinsulin peptide.
CC	KW Bioactive peptide; preproinsulin; pancreatic islet beta-cell;
CC	KW glucose-mediated insulin secretion; insulin synthesis; type II diabetes;
CC	KW glucose mediated insulin secretion.
CC	OS Homo sapiens.
CC	PN WC0200078805-A1.
CC	PD 28-DEC-2000.
CC	PF 19-JUN-2000; 2000WC-NZ000102.
CC	PR 18-JUN-1999; 99NZ-0036359.
CC	PA (COOP/) COOPER G J S.
CC	PA (BUCH/) BUCHANAN C M.
CC	P1 Cooper GJS, Buchanan CM;
CC	DR WPI: 2001-112313/12.
CC	DR N-PSDB; AAF24867.
CC	PT New mammalian peptide with preproinsulin functionality, useful for preventing
CC	PT or treating Type 2 diabetes mellitus by stimulating insulin secretion.
CC	PS Claim 5; Page 27; 51pp; English.
CC	XX
CC	XX The present sequence represents a mouse preproinsulin peptide. The peptide
CC	XX corresponds to A1969-Leu102 of the proIGF-II B peptide. Preproinsulin is
CC	XX secreted by pancreatic islet beta-cells which enhances glucose-mediated
CC	XX insulin secretion. Preproinsulin peptides and their analogues are useful in
CC	XX preparing medicaments for preventing or treating a condition which
CC	XX results in or involves deficient insulin synthesis, secretion or action
CC	XX e.g. type II diabetes. Antibodies specific to preproinsulin peptides are useful
CC	XX in an immunological assay such as radioimmunoassay (RIA), IRMA
CC	XX (undefined) or Enzyme linked immunosorbent assay (ELISA) for

quantitatively measuring preptin in a biological fluid preferably in cerebrospinal fluid. Agonists or antagonists of preptin peptides are useful for modulating glucose mediated insulin secretion

Sequence 34 AA;

Query Match 100.0%; Score 185; DB 4; Length 34;
Best Local Similarity 100.0%; Pred. No. 3.3e-20;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 DVSTSQAVLPDDPPRYVGKFFQYDTWRQSAGRL 34
1 DVSTSQAVLPDDPPRYVGKFFQYDTWRQSAGRL 34

RESULT 2

ADM35843

ID ADM35843 standard; peptide; 34 AA.

AC ADM35843;

DT 03-JUN-2004 (first entry)

Mouse preptin, SEQ ID NO:3, useful for treating beta-cell disorders.

Mouse; murine; preptin; pancreatic islet beta-cell; fibroblast; proliferation; differentiation; beta-cell disorder; diabetes; insulin resistance; insulin resistance; insulin secretion disorder; hyperglycaemia; wound; burns; ulcer; mucous membrane disruption; peripheral nervous system injury; Alzheimer's disease; Parkinson's disease; stroke; amyotrophic lateral sclerosis; muscular dystrophy; diabetic neuropathy; myocardial infarction; myocardial infarction; cardiac disease; acute renal insufficiency; ischaemia; antidiabetic; vulnery; antidiabetic; antidiabetic; gastroparesis; nocotropic; neuroprotective; antiparkinsonian; cerebroprotective; muscular; cardiac; nephroprotective; dermatological; protein therapy.

Mus sp.

WO2004012761-A1.

12-FEB-2004.

01-AUG-2003; 2003WO-NZ000171.

01-AUG-2002; 2002NZ-00520536.

01-AUG-2002; 2002US-0400445P.

(PROT-) PROTETIX CORP LTD.

Cooper GJS, Buchanan CM, James GC;

WPI; 2004-157011/15.

Use of preptin, preptin analogs, preptin agonists, their salts or derivatives, for treating a mediated disease, disorder or condition mediated in whole or in part by beta-cells or beta-cell dysfunction, e.g. ulcers or inflammation.

Claim 2; SEQ ID NO 3; 63pp; English.

The invention relates to a method for treating a disorder mediated by pancreatic islet beta-cells or beta-cell dysfunction by administering preptin (ADM35841-ADM35843), preptin analogues, preptin agonists or salts or derivatives thereof. Preptin are able to stimulate the proliferation and differentiation of beta-cells and fibroblasts. Preptin, preptin analogues, preptin agonists, their salts and derivatives are useful in the treatment of internal or external injuries or wounds (e.g., burns, ulcers, surgical wounds or mucous membrane disruption); conditions characterised by decreased beta-cell mass or number; beta-cell mediated diseases (e.g., type 1 or type 2 diabetes); and conditions characterised by insulin resistance, undesirably low

insulin secretion, hyperglycaemia or post-prandial hyperglycaemia. They may also be used for treating and/or preventing peripheral nervous system injury; Alzheimer's disease; Parkinson's disease; stroke; amyotrophic lateral sclerosis; muscular dystrophy; diabetic neuropathy; cardiac myocardiopathies such as myocarditis and myocardial infarction; cardiac disease and acute attack; and acute renal insufficiency caused by ischaemia. They are additionally useful for increasing or maintaining beta-cell mass or beta-cell number; for stimulating beta-cell proliferation via cell differentiation or neogenesis; for increasing type cell mass via cell differentiation or neogenesis; for decreasing cell death of motor neurons; for increasing muscular end plates; promoting the functional recovery of damaged sciatic nerves; preventing peripheral motor paralysis during or as a result of chemotherapy; and for improving myocardial function. The present sequence represents mouse preptin, which is specifically claimed for use in the method of the invention.

Sequence 34 AA;

Query Match 100.0%; Score 185; DB 8; Length 34;
Best Local Similarity 100.0%; Pred. No. 3.3e-20;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 DVSTSQAVLPDDPPRYVGKFFQYDTWRQSAGRL 34
1 DVSTSQAVLPDDPPRYVGKFFQYDTWRQSAGRL 34

RESULT 3

ADM96216

ID ADM96216 standard; peptide; 34 AA.

AC ADM96216;

DT 17-JUN-2004 (first entry)

Murine preptin peptide used to treat various bone conditions SeqID 1.

osteoblast growth; osteoblast apoptosis; preptin; preptin-like growth factor II; osteoporosis; osteopenia; osteogenesis imperfecta; primary hyperparathyroidism; endocrine disorder; corticosteroid treatment; autoimmune arthritis; drug use; murine; mouse.

Mus sp.

WO2004012760-A1.

12-FEB-2004.

31-JUL-2003; 2003WO-NZ000168.

01-AUG-2002; 2002US-0400443P.

(AUCK-) AUCKLAND UNISERVICES LTD.

Cornish J, Reid IR, Cooper GJS, Buchanan CM;

WPI; 2004-157010/15.

Use of preptin, preptin analog or preptin agonist for treating a bone condition (e.g. osteoporosis or osteopenia), increasing or maintaining bone density, stimulating osteoblast growth, or modulating osteoblast apoptosis.

Claim 2; SEQ ID NO 1; 29pp; English.

This invention relates to a novel method for treating a bone condition. Specifically, it refers to increasing or maintaining bone density, stimulating osteoblast growth, or modulating osteoblast apoptosis. The present invention comprises administering preptin, a preptin analogue or agonist thereof, which corresponds to residues Asp-69 to Leu-102 of the proinsulin-like growth factor II that is co-secreted with insulin from pancreatic islet beta cells in response to glucose. Accordingly, such compositions that exhibit osteopathic activities can be used to treat or

CC ameliorate diseases including osteoporosis, osteopenia, bone defects or
CC osteogenesis imperfecta, as well as bone loss resulting from primary
CC hyperparathyroidism, endocrine disorders, corticosteroid treatment,
CC autoimmune arthritis or addictive drug use. This peptide sequence is the
CC murine prepin peptide of the invention.
XX
SQ Sequence 34 AA;

Query Match 100.0%; Score 185; DB 8; Length 34;
Best Local Similarity 100.0%; Pred. No. 3.3e-70;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DVSTSQAVLPDPFPRYPVGKFFQYDTWRQSAAGRL 34
Db 1 DVSTSQAVLPDPFPRYPVGKFFQYDTWRQSAAGRL 34

RESULT 4
ID ABO84530 standard; protein; 353 AA.
XX ABO84530;
AC
XX
AC ABO84530;
XX
DT 18-NOV-2004 (first entry)
XX
DE Mouse cancer-associated protein MP15-022.1.
XX
KM Mouse; cancer-associated protein; cytostatic; cancer; leukaemia;
XX lymphoma; CAP.
XX
OS Mus musculus.
XX
PN WO2004074320-A2.
XX
PD 02-SEP-2004.
XX
PF 17-FEB-2004; 2004WO-US004730.
XX
PR 14-FEB-2003; 2003US-00367094.
XX
PR 14-MAR-2003; 2003US-00388838.
XX
PR 15-APR-2003; 2003US-00417375.
XX
PR 13-JUN-2003; 2003US-00461862.
XX
PR 15-SEP-2003; 2003US-00663431.
XX
PR 15-DEC-2003; 2003US-00737318.
XX
PA (SAGR-) SAGRES DISCOVERY INC.
XX
PI Morris DW, Morris DW, Malandro MS;
XX
DR MPI; 2004-652914/63.
XX
DR N-PSDB; ABD32743.
XX
PT New isolated cancer-associated polynucleotides and polypeptides useful
XX for diagnosing, preventing or treating cancers, especially lymphoma and
XX leukemia, or in screening for agents that modulate cancer.
XX
PS disclosure, seqid 339, 310pp; English.
XX
XX The invention relates to an isolated nucleic acid comprising at least 10
XX contiguous nucleotides of any of the 233 polynucleotide sequences given
XX in the specification, or its complement. The nucleic acids encode cancer-
XX associated proteins. Also included are an expression vector comprising
XX the isolated nucleic acid cited above, a host cell comprising the above
XX recombinant nucleic acid or expression vector, a microarray for detecting
XX a cancer-associated (CA) nucleic acid comprising at least one probe
XX comprising at least 10 contiguous nucleotides of any of the above-
XX mentioned nucleotide sequences, an isolated polypeptide (encoded within
XX an open reading frame of a CA sequence selected from any of the 95
XX polynucleotide sequences as mentioned in the specification, or its
XX complement), an isolated antibody, (or its antigen binding fragment) that
XX binds to the above polypeptide, a hybridoma that produces the above
XX monoclonal antibody, a pharmaceutical composition comprising the above
XX antibody and a pharmaceutical excipient, a kit for detecting cancer

CC cells (comprising the antibody cited above, methods for diagnosing cancer
CC or for detecting the presence or absence of cancer cells in an
CC individual, a method for inhibiting growth of cancer cells in an
CC individual, a method for delivering a therapeutic agent to cancer cells
CC in an individual, an electronic library comprising the above
CC polynucleotide or polypeptide (or their fragments), methods of screening
CC for anticancer activity or for a bioactive agent capable of modulating
CC the activity of a CA protein (CAP), methods for detecting cancer
CC associated with expression of a polypeptide in a test cell sample, a
CC method for treating cancers and a method for inhibiting the expression of
CC CA gene in a cell. The composition and methods are useful for detecting,
CC diagnosing, preventing and treating cancers, especially lymphoma and
CC leukemia. These may also be used in screening for agents that modulate
CC cancer. The present sequence is a mouse CAP protein sequence. Note: The
CC sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 353 AA;

Query Match 100.0%; Score 185; DB 8; Length 353;
Best Local Similarity 100.0%; Pred. No. 4.5e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DVSTSQAVLPDPFPRYPVGKFFQYDTWRQSAAGRL 34
Db 266 DVSTSQAVLPDPFPRYPVGKFFQYDTWRQSAAGRL 299

RESULT 5
ID AAB31482 standard; peptide; 34 AA.
XX AAB31482;
AC
XX
AC AAB31482;
XX
DT 20-APR-2001 (first entry)
XX
DE Amino acid sequence of rat prepin peptide.
XX
XX Bioactive peptide; prepin; pancreatic islet beta-cell;
XX KM glucose-mediated insulin secretion; insulin synthesis; type II diabetes;
XX KM glucose mediated insulin secretion.
XX
OS Rattus sp.
XX
XX WO200078805-A1.
XX
PN 28-DEC-2000.
XX
PD 19-JUN-2000; 2000WO-NZ000102.
XX
PF 18-JUN-1999; 99NZ-00336359.
XX
PR (COOP/) COOPER G J S.
XX (BUCH/) BUCHANAN C M.
XX
XX Cooper GJS, Buchanan CM;
XX
XX MPI; 2001-112313/12.
XX
XX N-PSDB; AAF24866.
XX
PT New mammalian peptide with prepin functionality, useful for preventing
XX or treating Type 2 diabetes mellitus by stimulating insulin secretion.
XX
PS Claim 4; Page 27; 51pp; English.
XX
XX The present sequence represents a rat prepin peptide. The peptide
XX corresponds to Arg69-Ileu102 of the proIGF-II B peptide. Prepin is
XX secreted by pancreatic islet beta-cells which enhances glucose-mediated
XX insulin secretion. Prepin peptides and their analogues are useful in
XX preparing medicaments for preventing or treating a condition which
XX results in or involves deficient insulin synthesis, secretion or action
XX e.g. type II diabetes. Antibodies specific to prepin peptides are useful

CC in an immunological assay such as radioimmunoassay (RIA), IRMA
CC (undefined) or Enzyme linked immunosorbent assay (ELISA) for
CC quantitatively measuring preptin in a biological fluid preferably in
CC cerebrospinal fluid. Agonists or antagonists of preptin peptides are
CC useful for modulating glucose mediated insulin secretion

XX Sequence 34 AA;

Query Match 95.7%; Score 177; DB 4; Length 34;

Best Local Similarity 94.1%; Pred. No. 5.3e-19;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTGAVLPDPPRPYVGKFFQYDTWRQSAGRL 34
1 DVSTGAVLPDPPRPYVGKFFQYDTWRQSAGRL 34

RESULT 6
ADM35842
ID ADM35842 standard; peptide; 34 AA.

XX ADM35842;

DT 03-JUN-2004 (first entry)

Rat preptin, SEQ ID NO:2, useful for treating beta-cell disorders.

KM Rat; preptin; pancreatic islet beta-cell; fibroblast; proliferation;
KM differentiation; beta-cell disorder; diabetes; insulin resistance;
KM insulin resistance; insulin secretion disorder; hyperglycaemia; wound;
KM burns; ulcer; mucous membrane disruption;
KM peripheral nervous system injury; Alzheimer's disease;
KM Parkinson's disease; stroke; amyotrophic lateral sclerosis;
KM muscular dystrophy; diabetic neuropathy; myocardopathy; myocarditis;
KM myocardial infarction; cardiac disease; acute renal insufficiency;
KM ischaemia; antidiabetic; vulnery; antidiabetic; antiinflammatory;
KM gastrointestinal; neurotropic; neuroprotective; antiparkinsonian;
KM cerebroprotective; muscular; cardiac; nephrotropic; dermatological;
KM protein therapy.

XX Rattus sp.

PN WO2004012761-A1.

XX 12-FEB-2004.

PF 01-AUG-2003; 2003WO-NZ000171.

PR 01-AUG-2002; 2002NZ-00520536.

XX 01-AUG-2002; 2002US-0400445P.

PA (PROT-) PROTEMIX CORP LTD.

PI Cooper GJS, Buchanan CM, James GC;

XX WPI; 2004-157011/15.

PT Use of preptin, preptin analogs, preptin agonists, their salts or
PT derivatives, for treating a mediated disease, disorder or condition
PT mediated in whole or in part by beta-cells or beta-cell dysfunction, e.g.
PT ulcers or inflammation.

XX Claim 2; SEQ ID NO 2; 63pp; English.

XX The invention relates to a method for treating a disorder mediated by
CC pancreatic islet beta-cells or beta-cell dysfunction by administering
CC preptins (ADM35841-ADM35843), preptin analogues, preptin agonists or
CC salts or derivatives thereof. Preptins are able to stimulate the
CC proliferation and differentiation of beta-cells and fibroblasts.
CC Preptins, preptin analogues, preptin agonists, their salts and
CC derivatives are useful in the treatment of internal or external injuries
CC or wounds (e.g., burns, ulcers, surgical wounds or mucous membrane
CC disruption); conditions characterised by decreased beta-cell mass or

CC number; beta-cell mediated diseases (e.g., type 1 or type 2 diabetes);
CC and conditions characterised by insulin resistance, undesirably low
CC insulin secretion, hyperglycaemia or post-prandial hyperglycaemia. They
CC may also be used for treating and/or preventing peripheral nervous system
CC injury; Alzheimer's disease; Parkinson's disease; stroke; amyotrophic
CC lateral sclerosis; muscular dystrophy; diabetic neuropathy;
CC myocardopathies such as myocarditis and myocardial infarction; cardiac
CC disease and acute attack; and acute renal insufficiency caused by
CC ischaemia. They are additionally useful for increasing or maintaining
CC beta-cell mass or beta-cell number; for stimulating beta-cell
CC proliferation via cell differentiation or neogenesis; for increasing type
CC -cell mass via cell differentiation or neogenesis; for decreasing cell
CC death of motor neurons; for increasing muscular end plates; promoting the
CC functional recovery of damaged sciatic nerves; preventing peripheral
CC motor paralysis during or as a result of chemotherapy; and for improving
CC myocardial function. The present sequence represents rat preptin, which
CC is specifically claimed for use in the method of the invention.

XX Sequence 34 AA;

Query Match 95.7%; Score 177; DB 8; Length 34;

Best Local Similarity 94.1%; Pred. No. 5.3e-19;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTGAVLPDPPRPYVGKFFQYDTWRQSAGRL 34
1 DVSTGAVLPDPPRPYVGKFFQYDTWRQSAGRL 34

RESULT 7
ADM96217
ID ADM96217 standard; peptide; 34 AA.

XX ADM96217;

DT 17-JUN-2004 (first entry)

Rat preptin peptide used to treat various bone conditions Seqid 2.

XX osteoblast growth; osteoblast apoptosis; preptin;
KM proinsulin-like growth factor II; osteopathic; osteoporosis; osteopenia;
KM osteogenesis imperfecta; primary hyperparathyroidism; endocrine disorder;
KM corticosteroid treatment; autoimmune arthritis; drug use; rat.

XX Rattus sp.

PN WO2004012760-A1.

XX 12-FEB-2004.

PF 31-JUL-2003; 2003WO-NZ000168.

PR 01-AUG-2002; 2002US-0400443P.

PA (AUCK-) AUCKLAND UNISERVICES LTD.

PI Cornish J, Reid IR, Cooper GJS, Buchanan CM;

XX WPI; 2004-157010/15.

PT Use of preptin, preptin analog or preptin agonist for treating a bone
PT condition (e.g. osteoporosis or osteopenia), increasing or maintaining
PT bone density, stimulating osteoblast growth, or modulating osteoblast
PT apoptosis.

XX Claim 2; SEQ ID NO 2; 29pp; English.

XX This invention relates to a novel method for treating a bone condition.
CC Specifically, it refers to increasing or maintaining bone density. The
CC stimulating osteoblast growth, or modulating osteoblast apoptosis. The
CC present invention comprises administering preptin, a preptin analogue or
CC agonist thereof, which corresponds to residues Asp-69 to Leu-102 of the
CC proinsulin-like growth factor II that is co-secreted with insulin from

CC pancreatic islet beta cells in response to glucose. Accordingly, such
 CC compositions that exhibit osteopathic activities can be used to treat or
 CC ameliorate diseases including osteoporosis, osteopenia, bone defects or
 CC osteogenesis imperfecta, as well as bone loss resulting from primary
 CC hyperparathyroidism, endocrine disorders, corticosteroid treatment,
 CC autoimmune arthritis or addictive drug use. This peptide sequence is the
 CC rat prepin peptide of the invention.

XX
 XX
 SQ Sequence 34 AA;

Query Match 95.7%; Score 177; DB 8; Length 34;
 Best Local Similarity 94.1%; Pred. No. 5.3e-19;
 Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVGKFFQYDTWRQSAAGRL 34
 |||||
 DB 1 DVSTSOAVLPDDPPRYVGVGKFFQYDTWRQSAAGRL 34

RESULT 8

ABBS7375
 ID ABBS7375 standard; protein; 180 AA.

XX
 AC ABBS7375;

DT 07-AUG-2003 (revised)
 DT 08-MAR-2002 (first entry)

DE Rat mucocardial cell proliferation associated polypeptide SEQ ID NO 2.

XX Rat; heart; cardiact; myocardial necrosis; cardiac hypertrophy;
 KM cardiac insufficiency.

XX Rattus norvegicus.

OS
 PN WO200183705-A1.

XX
 PD 08-NOV-2001.

XX
 PF 27-APR-2001; 2001WO-JD003700.

XX
 PR 27-APR-2000; 2000JP-00126741.

XX
 PA (KYOM) KYOMA HAKKO KOGYO KK.

XX
 PI Yamada Y, Sekine S, Kikuchi Y, Sakurada K;

DR
 DR MPI; 2002-075160/10.

XX
 DR N-PSDB; AB199915.

PT Genes having differential expression in fetal and adult heart tissue
 PT useful for screening potential drugs for promoting repair of damage
 PT caused by myocardial necrosis.

XX
 PS Claim 53; Page 78-79; 171pp; Japanese.

XX The invention relates to gene sequences (AB199915-AB199934) having
 CC modified expression in fetal heart tissue as compared to adult heart
 CC tissue and the encoded proteins (ABBS7375-ABBS7392). The genes have
 CC cardiant activity and may be useful in the promotion of the repair of
 CC damage to heart tissue caused by myocardial necrosis. The gene sequences
 CC are useful for screening potential compounds for the ability to influence
 CC disease associated with myocardial necrosis. Drugs identified by the
 CC screening methods may be used to treat and prevent disease with which
 CC myocardial necrosis is associated, such as cardiac hypertrophy and
 CC cardiac insufficiency. Diagnosis of diseases such as those above is also
 CC disclosed. (Updated on 07-AUG-2003 to correct OS field.)

XX
 SQ Sequence 180 AA;

Query Match 95.7%; Score 177; DB 5; Length 180;
 Best Local Similarity 94.1%; Pred. No. 3.4e-18;
 Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVGKFFQYDTWRQSAAGRL 34
 |||||
 DB 93 DVSTSOAVLPDDPPRYVGVGKFFQYDTWRQSAAGRL 126

RESULT 9

ADD46366
 ID ADD46366 standard; protein; 180 AA.

XX
 AC ADD46366;

DT 29-JAN-2004 (first entry)

DE Rat Protein P01346, SEQ ID NO 12045.

XX Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
 KM chronic constriction injury; CCI; spared nerve injury; SNR; Chung.

XX Rattus norvegicus.

OS
 PN WO2003016475-A2.

XX
 PD 27-FEB-2003.

XX
 PF 14-AUG-2002; 2002WO-US025765.

XX
 PR 14-AUG-2001; 2001US-0312147P.

XX
 PR 01-NOV-2001; 2001US-0346382P.

XX
 PR 26-NOV-2001; 2001US-0333477P.

XX
 PA (GENO) GEN HOSPITAL CORP.

XX
 PA (FARB) BAYER AG.

XX
 PI Woolf C, D'urso D, Befort K, Costigan M;

XX
 DR MPI; 2003-268312/26.

XX
 DR GENBANK; P01346.

XX
 PS Claim 1; Page; 1017pp; English.

XX The invention discloses a composition comprising two or more isolated rat
 CC or human polynucleotides or a polynucleotide which represents a fragment,
 CC derivative or allelic variation of the nucleic acid sequence. Also
 CC claimed are a vector comprising the novel polynucleotide, a host cell
 CC comprising the vector, a method for identifying a nucleotide sequence
 CC which is differentially regulated in an animal subjected to pain and a
 CC kit to perform the method, an array, a method for identifying an agent
 CC that increases or decreases the expression of the polynucleotide sequence
 CC that is differentially expressed in neuronal tissue of a first animal
 CC subjected to pain, a method for identifying a compound which regulates
 CC the expression of a polynucleotide sequence which is differentially
 CC expressed in an animal subjected to pain, a method for identifying a
 CC compound that regulates the activity of one or more of the
 CC polynucleotides, a method for producing a pharmaceutical composition, a
 CC method for identifying a compound or small molecule that regulates the
 CC activity in an animal of one or more of the polypeptides given in the
 CC specification, a method for identifying a compound useful in treating
 CC pain and a pharmaceutical composition comprising the one or more
 CC polypeptides or their antibodies. The polynucleotide or the compound that
 CC modulates its activity is useful for preparing a medicament for treating
 CC pain (e.g. spinal segmental nerve injury (SNR), chronic constriction
 CC injury (CCI) and spared nerve injury (SNR)) in an animal (e.g. gene
 CC therapy). The sequence presented is a rat protein (shown in Table 2 of
 CC the specification) which is differentially expressed during pain. Note:
 CC The sequence data for this patent did not form part of the printed
 CC specification, but was obtained in electronic form directly from WIPO at
 CC ftp.wipo.int/pub/published_pct_sequences.

XX
 SQ Sequence 180 AA;

	Query Match	95.7%;	Score 177;	DB 7;	Length 180;
	Best Local Similarity	94.1%;	Pred.No.3.4e-18;		
	Matches 32; Conservative	2;	Mismatches 0;	Indels 0;	Gaps 0;
Oy	1 DVSTSQAVLPDDFPFYPVGGKFFQYDTWROSAGRL 34 :: :				
Dd	93 DVSTSQAVLPDDFPFYPVGGKFFQYDTWROSAGRL 126 :: :				
RESULT 10					
ID	AAB31481 standard; peptide; 34 AA.				
AC	AAB31481;				
XX					
XX	20-AFR-2001 (first entry)				
DE	Amino acid sequence of human preproinsulin peptide.				
KM	Bioactive peptide; proinsulin; pancreatic islet beta-cell; glucose-mediated insulin secretion; insulin synthesis; type II diabetes; glucose mediated insulin secretion.				
OS	Homo sapiens.				
PM	WO20078805-A1.				
PD	28-DEC-2000.				
PF	19-JUN-2000; 2000MO-NZ000102.				
PR	18-JUN-1999; 99NZ-00336359.				
PA	(COOP/) COOPER G J S. (BUCH/) BUCHANAN C M.				
PI	Cooper GJS, Buchanan CM;				
DR	N-Psdb; AAF24865.				
PT	New mammalian peptide with preproinsulin functionality, useful for preventing or treating Type 2 diabetes mellitus by stimulating insulin secretion.				
PS	Claim 3, Page 27, Slpp; English.				
CC	The present sequence represents a human preproinsulin peptide. The peptide corresponds to Arg69-Leu102 of the pI0IG-II E peptide. Preproinsulin is secreted by pancreatic islet beta-cells which enhances glucose-mediated insulin secretion. Proinsulin peptides and their analogues are useful in preparing medicaments for preventing or treating a condition which results in or involves deficient insulin synthesis, secretion or action e.g. type II diabetes. Antibodies specific to preproinsulin peptides are useful in an immunological assay such as radioluminoassay (RIA), IRMA (undefined) or Enzyme linked immunoabsorbent assay (ELISA) for quantitatively measuring preproinsulin in a biological fluid preferably in cerebrospinal fluid. Agonists or antagonists of preproinsulin peptides are useful for modulating glucose mediated insulin secretion				
SX	Sequence 34 AA;				
Query Match	81.1%; Score 150; DB 4; Length 34;				
Best Local Similarity	79.4%; Pred.No.6.4e-15;				
Matches 27; Conservative	2; Mismatches 5; Indels 0; Gaps 0				
Oy	1 DVSTSQAVLPDDFPFYPVGGKFFQYDTWROSAGRL 34 :: :				
Dd	1 DVTSTEPTVLDPNFPFYVGKKFFQYDTWKSGTGRLL 34 :: :				
RESULT 11					
ADM35841					

XX	ID	ADM35841 standard; peptide; 34 AA.
XX	AC	ADM35841;
XX	DT	03-JUN-2004 (first entry)
XX	DE	Human preptin, SEQ ID NO:1, useful for treating beta-cell disorders.
XX	XX	
XX	XX	Human; preptin; pancreatic islet beta-cell; fibroblast; proliferation;
XX	XX	differentiation; beta-cell disorder; diabetes; insulin resistance;
XX	XX	insulin resistance; insulin secretion disorder; hyperglycaemia; wound;
XX	XX	burns; ulcer; mucous membrane disruption;
XX	XX	peripheral nervous system injury; Alzheimer's disease;
XX	XX	Parkinson's disease; stroke; amyotrophic lateral sclerosis;
XX	XX	muscular dystrophy; diabetic neuropathy; mycardiopathy; mycarditis;
XX	XX	myocardial infarction; cardiac disease; acute renal insufficiency;
XX	XX	ischaemia; antidiabetic; vulnereary; anticulcer; antiinflammatory;
XX	XX	gastrointestinal; nootropic; neuroprotective; antiparkinsonian;
XX	XX	cardioprotective; muscular; cardiant; nephrotropic; dermatological;
XX	XX	protein therapy.
XX	XX	
XX	OS	Homo sapiens.
XX	XX	
XX	XX	MO2004012761-A1.
XX	XX	
XX	PD	12-FEB-2004.
XX	XX	
XX	XX	01-AUG-2003; 2003WO-NZ000171.
XX	PF	
XX	PR	01-AUG-2002; 2002NZ-00520536.
XX	XX	
XX	XX	01-AUG-2002; 2002US-04004456.
XX	PA	
XX	XX	(PROT-) PROTOMIX CORP LTD.
XX	PI	
XX	XX	Cooper GJS, Buchanan CM, James GC;
XX	DR	WPI; 2004-157011/15.
XX	XX	
XX	PT	Use of preptins, preptin analogs, preptin agonists, their salts or
XX	XX	derivatives, for treating a mediated disease, disorder or condition
XX	PT	mediated in whole or in part by beta-cells or beta-cell dysfunction, e.g.
XX	PT	ulcers or inflammation.
XX	XX	
XX	PS	Claim 2; SEQ ID NO 1; 63pp; English.
XX	XX	
XX	XX	The invention relates to a method for treating a disorder mediated by
XX	XX	pancreatic islet beta-cells or beta-cell dysfunction by administering
XX	XX	preptins (ADM35841-ADM35843), preptin analogues, preptin agonists or
XX	XX	salts or derivatives thereof. Preptins are able to stimulate the
XX	XX	proliferation and differentiation of beta-cells and fibroblasts.
XX	XX	Preptins, preptin analogues, preptin agonists, their salts and
XX	XX	derivatives are useful in the treatment of internal or external injuries
XX	XX	or wounds (e.g., burns, ulcers, surgical wounds or mucous membrane
XX	XX	disruption); conditions characterised by decreased beta-cell mass or
XX	XX	number; beta-cell mediated diseases (e.g., type 1 or type 2 diabetes);
XX	XX	and conditions characterised by insulin resistance, undesirably low
XX	XX	insulin secretion, hyperglycaemia or post-prandial hyperglycaemia. They
XX	XX	may also be used for treating and/or preventing peripheral nervous system
XX	XX	injury; Alzheimer's disease; Parkinson's disease; stroke; amyotrophic
XX	XX	lateral sclerosis; muscular dystrophy; diabetic neuropathy;
XX	XX	myocardial infarction; mycarditis; mycardiopathy; mycarditis;
XX	XX	myocardial infarction; cardiac disease; acute renal insufficiency caused by
XX	XX	ischaemia. They are additionally useful for increasing or maintaining
XX	XX	beta-cell mass or beta-cell number; for stimulating beta-cell
XX	XX	proliferation via cell differentiation or neogenesis; for increasing type
XX	XX	cell mass via cell differentiation or neogenesis; for decreasing cell
XX	XX	death of motor neurons; for increasing muscular end plates; promoting the
XX	XX	functional recovery of damaged sciatic nerves; preventing peripheral
XX	XX	motor paralysis during or as a result of chemotherapy; and for improving
XX	XX	myocardial function. The present sequence represents human preptin, which
XX	XX	is specifically claimed for use in the method of the invention.
XX	XX	
XX	XX	Sequence 34 AA;

Query Match 81.1%; Score 150; DB 8; Length 34;
 Best Local Similarity 79.4%; Pred. No. 6.4e-15;
 Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSGAULPDDPPRYVGVKFFQYDTWROSAGRL 34
 1 DVSTPPTVLPDNPPRYVGVKFFQYDTWKOSTORL 34
 DB

RESULT 12
 ADM96218
 ID ADM96218 standard; peptide; 34 AA.
 XX
 AC ADM96218;
 XX
 DT 17-JUN-2004 (first entry)
 XX
 DE Human preptin peptide used to treat various bone conditions SeqID 3.

XX osteoblast growth; osteoblast apoptosis; preptin;
 KM proinsulin-like growth factor II; osteopathic; osteoporosis; osteopenia;
 KW osteogenesis imperfecta; primary hyperparathyroidism; endocrine disorder;
 KM corticosteroid treatment; autoimmune arthritis; drug use; human.
 XX Homo sapiens.
 OS
 PN MO2004012760-A1.
 XX
 PD 12-FEB-2004.
 XX
 PF 31-JUL-2003; 2003WO-NZ000168.
 XX
 PR 01-AUG-2002; 2002US-0400443P.
 XX
 PA (AUCK-) AUCKLAND UNISERVICES LTD.
 XX
 PI Cornish J, Reid IR, Cooper GJS, Buchanan CM;
 DR WPI; 2004-157010/15.

XX Use of preptin, preptin analog or preptin agonist for treating a bone
 PT condition (e.g. osteoporosis or osteopenia), increasing or maintaining
 PT bone density, stimulating osteoblast growth, or modulating osteoblast
 PT apoptosis.
 XX
 PS Claim 2; SEQ ID NO 3; 29pp; English.
 XX

XX This invention relates to a novel method for treating a bone condition.
 CC Specifically, it refers to increasing or maintaining bone density,
 CC stimulating osteoblast growth, or modulating osteoblast apoptosis. The
 CC present invention comprises administering preptin, a preptin analogue or
 CC agonist thereof, which corresponds to residues Asp-69 to Leu-102 of the
 CC proinsulin-like growth factor II that is co-secreted with insulin from
 CC pancreatic islet beta cells in response to glucose. Accordingly, such
 CC compositions that exhibit osteopathic activities can be used to treat or
 CC ameliorate diseases including osteoporosis, osteopenia, bone defects or
 CC osteogenesis imperfecta, as well as bone loss resulting from primary
 CC hyperparathyroidism, endocrine disorders, corticosteroid treatment,
 CC autoimmune arthritis or addictive drug use. This peptide sequence is the
 CC human preptin peptide of the invention.
 XX

XX Sequence 34 AA;

QY Query Match 81.1%; Score 150; DB 8; Length 34;
 Best Local Similarity 79.4%; Pred. No. 6.4e-15;
 Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSGAULPDDPPRYVGVKFFQYDTWROSAGRL 34
 1 DVSTPPTVLPDNPPRYVGVKFFQYDTWKOSTORL 34
 DB

RESULT 13
 AAB91207
 ID AAB91207 standard; peptide; 35 AA.
 XX
 AC AAB91207;
 XX
 DT 22-JUN-2001 (first entry)
 XX
 DE Insulin and insulin-like peptide SEQ ID NO:381.

XX Protection; endogenous therapeutic peptide; peptidase; conjugation;
 KM blood component; modification; succinimideyl; maleimido group; amino;
 KM hydroxyl; thiol; hormone; growth factor; neurotransmitter.

XX Homo sapiens.
 OS
 OS Synthetic.
 PN MO200069900-A2.
 XX
 PD 23-NOV-2000.

XX 17-MAY-2000; 2000WO-US013576.
 XX
 PR 17-MAY-1999; 99US-0134406P.
 PR 10-SEP-1999; 99US-0153406P.
 PR 15-OCT-1999; 99US-0159783P.

PA (CONU-) CONNUCHEM INC.

XX Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudau K;
 PI WPI; 2001-112059/12.
 XX

XX Modifying and attaching therapeutic peptides to albumin prevents
 PT peptidase degradation, useful for increasing length of in vivo activity.
 XX
 PS Disclosure; Page 321-322; 733pp; English.

XX The present invention describes a modified therapeutic peptide (1)
 CC comprising a therapeutically active amino acid region (III) and a
 CC reactive group (II) (e.g. succinimideyl and maleimido groups) attached to
 CC a less therapeutically active amino acid region (IV), which covalently
 CC bonds with amino/hydroxyl/thiol groups on blood components to form a
 CC peptidease stabilized therapeutic peptide composed of 3-50 amino acids.
 CC (1) are useful for modifying therapeutic peptides e.g. hormones, growth
 CC factors and neurotransmitters, to protect them from peptidase activity in
 CC vivo for the treatment of various disorders. Endogenous therapeutic
 CC peptides are not suitable as drug candidates as they require frequent
 CC administration due to rapid degradation by peptidases in the body.
 CC Modifying and attaching therapeutic peptides to albumin prevents or
 CC reduces the action of peptidases to increase length of activity (half
 CC life) and specificity as bonding to large molecules decreases
 CC intracellular uptake and interference with physiological processes.
 CC AAB90829 to AAB92441 represent peptides which can be used in the
 CC exemplification of the present invention
 XX

XX Sequence 35 AA;

QY Query Match 81.1%; Score 150; DB 4; Length 35;
 Best Local Similarity 79.4%; Pred. No. 6.6e-15;
 Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSGAULPDDPPRYVGVKFFQYDTWROSAGRL 34
 1 DVSTPPTVLPDNPPRYVGVKFFQYDTWKOSTORL 35
 DB

RESULT 14
 AED59621
 ID AED59621 standard; protein; 155 AA.
 XX
 AC AED59621;
 XX


```

DT 29-DEC-2005 (first entry)
XX Human insulin growth factor 2 (IGF2) polypeptide.
XX Insulin growth factor 2; IGF2; cell growth; cell differentiation.
XX Homo sapiens.
XX IN900401-14.
XX 04-MAR-2005.
XX 07-APR-1999; 99IN-CH000401.
XX 07-APR-1999; 99IN-CH000401.
XX 07-APR-1999; 99IN-CH000401.
XX (ZYMO ) ZYMOGENETICS INC.
XX Conklin DC, Lofton-Day CE, Lok ST, Jaspers SR;
XX WPI; 2005-557657/57.
XX Insulin homologs.
XX Disclosure; Fig 1; 78pp; English.
XX The invention relates to polynucleotide and polypeptide sequences for a
XX novel insulin homolog referred to as Zins3. The polynucleotide sequences
XX encoding the Zins3 polypeptides are located on chromosome 12. The present
XX invention also includes antibodies to the Zins3 polypeptides. The Zins3
XX polynucleotide and polypeptide sequences of the invention are useful for
XX identifying and isolating receptors involved in growth and
XX differentiation of Zins3 responsive cells. This sequence represents human
XX insulin growth factor 2 (IGF2) that shows homology to human Zins3.
XX
XX SQ Sequence 155 AA;
XX
XX Query Match 81.1%; Score 150; DB 9; Length 155;
XX Best Local Similarity 79.4%; Pred. No. 3.4e-14;
XX Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;
XX
XX QY 1 DVSTSQAVLPDDFPRYPVGKFFQYDTWRQSGRL 34
XX |||||:|||||:|||||:|||||:|||||:
XX |||||:|||||:|||||:|||||:|||||:
XX 93 DVSTPPTVLPDNPFRYPVGKFFQYDTWRQSGRL 126
XX
XX RESULT 15
XX ADV90292
XX ID ADV90292 standard; protein; 156 AA.
XX
XX AC ADV90292;
XX
XX DT 10-MAR-2005 (first entry)
XX
XX DE Protease-hydrolysed polypeptide #69.
XX
XX Protease; immune disorder; inflammation; musculoskeletal disease;
XX dermatological disease; gastrointestinal disease; endocrine disease;
XX metabolic disorder; cancer; hematological disease;
XX cardiovascular disease; neurological disease; neurodegenerative disease;
XX growth disorder; respiratory disease; genitourinary disease;
XX gynecological disorder; nutritional disorder; infection; cytostatic;
XX gastrointestinal-gen.; antiinflammatory; antiaesthetic; analgesic;
XX antidiabetic; osteopathic; antidiabetic; nephrotoxic;
XX cardiovascular-gen.; immunosuppressive; respiratory-gen.; antipsoriatic;
XX antiallergic; dermatological; enzyme; hydrolysis.
XX
XX OS Homo sapiens.
XX
XX PN WO2004113522-A1.
XX
XX PD 29-DEC-2004.
XX

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PF 18-JUN-2004; 2004WO-EP051173.
XX
XX 18-JUN-2003; 2003EP-00013819.
XX 10-NOV-2003; 2003EP-00025851.
XX 11-NOV-2003; 2003EP-00025871.
XX 11-FEB-2004; 2004EP-00003058.
XX (DIRE-) DIREVO BIOTECH AG.
XX
XX Haupts U, Koltermann A, Scheidig A, Voetemeier C, Ketting U;
XX WPI; 2005-057985/06.
XX
XX Proteases with defined specificity for a target substrate useful for
XX treating a specific disease related to the target substrate, such as
XX cancer, asthma, diabetes, inflammatory disorders and psoriasis.
XX
XX Claim 30; SEQ ID NO 122; 250pp; English.
XX
XX The invention relates to the use of a protease with defined specificity
XX for a target substrate for preparing a medicament for the treatment of a
XX specific disease related to the target substrate. The invention also
XX relates to a pharmaceutical or diagnostic composition comprising one or
XX more enzymes in the use cited, optionally comprising pharmaceutically or
XX diagnostically acceptable carriers, excipients and/or auxiliary agents, a
XX method for cleaving a target substrate in vivo or in vitro comprising
XX contacting the target substrate with a protease as cited in the use
XX mentioned, and a method for treatment of a disease in a patient connected
XX with a specific target substrate comprising administering to the patient
XX a protease with defined specificity for the specific target substrate.
XX The protease hydrolyses the target substrate and eliminates or reduces
XX one or more biological activities, physico-chemical properties or
XX pharmacological properties of the target protein and/or activates or
XX increases one or more biological activities, physico-chemical properties
XX or pharmacological properties of the target protein, and/or adds one or
XX more biological activities, physico-chemical properties or
XX pharmacological properties to the target protein. The protease may be
XX administered to treat immune disorders, inflammatory disorders,
XX musculoskeletal diseases, dermatological diseases, gastrointestinal
XX diseases, endocrine diseases, metabolic disorder, cancers, hematological
XX diseases, cardiovascular diseases, neurological diseases,
XX neurodegenerative diseases, growth disorders, respiratory diseases,
XX genitourinary diseases, gynecological disorders, nutritional disorders
XX and infections. This sequence represents a polypeptide hydrolysed by a
XX protease used in the scope of the invention.
XX
XX SQ Sequence 156 AA;
XX
XX Query Match 81.1%; Score 150; DB 9; Length 156;
XX Best Local Similarity 79.4%; Pred. No. 3.5e-14;
XX Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;
XX
XX QY 1 DVSTSQAVLPDDFPRYPVGKFFQYDTWRQSGRL 34
XX |||||:|||||:|||||:|||||:|||||:
XX |||||:|||||:|||||:|||||:|||||:
XX 69 DVSTPPTVLPDNPFRYPVGKFFQYDTWRQSGRL 102
XX
XX Search completed: May 21, 2006, 12:37:33
XX Job time : 121.333 secs

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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:37:56 ; Search time 19.6667 Seconds
(without alignments)
166.341 Million cell updates/sec

Title: US-10-632-366-3

Perfect score: 185
Sequence: 1 DVSTSQAVLPDDPRRYPVGKFFQYDTMROSAGRL 34

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR 80:*
1: pirl:*
2: pirl:*
3: pirl:*
4: pirl:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	185	100.0	180	2 A24913	insulin-like growth
2	177	95.7	180	1 IGR72	insulin-like growth
3	156	84.3	128	2 I57671	insulin-like growth
4	150	81.1	180	1 IGHU2	insulin-like growth
5	150	81.1	181	2 B60728	insulin-like growth
6	150	81.1	183	2 I67610	insulin-like growth
7	150	81.1	183	2 S02423	insulin-like growth
8	132	71.4	179	2 S04858	insulin-like growth
9	128	69.2	155	1 IGB02	insulin-like growth
10	99	53.5	93	2 I53642	insulin-like growth
11	53	28.6	206	2 T46194	hypothetical prote
12	51.5	27.8	197	1 TYBS7	hypothetical prote
13	51	27.6	631	2 T10958	hypothetical prote
14	50.5	27.3	1012	2 T00958	hypothetical prote
15	50.5	27.3	2109	2 T31352	hypothetical prote
16	50	27.0	205	2 AG1345	hypothetical prote
17	50	27.0	393	2 T15717	hypothetical prote
18	50	27.0	503	2 AC0732	hypothetical prote
19	50	27.0	503	2 AG0624	hypothetical prote
20	50	27.0	627	2 G81719	hypothetical prote
21	49.5	26.8	498	2 S56868	hypothetical prote
22	49.5	26.8	575	2 G86231	hypothetical prote
23	49.5	26.8	793	2 H82594	hypothetical prote
24	49	26.5	298	2 G75140	hypothetical prote
25	49	26.5	613	2 S66977	hypothetical prote
26	49	26.5	638	2 S67605	hypothetical prote
27	49	26.5	1698	2 T13800	hypothetical prote
28	48.5	26.2	437	2 G86178	hypothetical prote
29	48.5	26.2	473	1 A38874	protein-tyrosine-p

30	48.5	26.2	579	2 T01160	hypothetical prote
31	48.5	26.2	1037	2 D96786	protein F10A5.15 f
32	48.5	26.2	1041	2 S42509	Rag-1 protein - ch
33	48.5	26.2	1230	2 S53974	hypothetical prote
34	48.5	26.2	132	2 S36196	hypothetical prote
35	48	25.9	398	2 F86640	multidrug resistanc
36	48	25.9	404	2 T37762	queuine trna-ribos
37	48	25.9	459	2 I38013	p54/58N - human
38	48	25.9	481	2 H96529	hypothetical prote
39	48	25.9	556	2 F64405	methyl coenzyme M
40	48	25.9	864	2 JC4624	alpha-glucosidase
41	48	25.9	896	2 S26984	probable DNA-direc
42	47.5	25.7	214	2 B46244	insulin-like growth
43	47.5	25.7	398	2 C84780	hypothetical prote
44	47.5	25.7	408	2 T50876	hypothetical prote
45	47.5	25.7	465	2 D64881	ycjX protein - Bsc

ALIGNMENTS

RESULT 1
A24913
insulin-like growth factor II precursor - mouse
C:Species: Mus musculus (house mouse)
C>Date: 07-Mar-1988 #sequence revision 07-Mar-1988 #text change 09-Jul-2004
C:Accession: A24913; S35874; I48463; I48464; I59137; S35875
R:Stempien, M.M.; Fong, N.M.; Rall, L.B.; Bell, G.I.
DNA 5, 357-361, 1986
A:Title: Sequence of a placental cDNA encoding the mouse insulin-like growth factor II
A:Reference number: A24913; MIMD:87053171; PMID:3780370
A:Accession: A24913
A:Molecule type: mRNA
A:Residues: 1-180 <STE>
A:Cross-references: UNIPROT:P09535; UNIPARC:UPI000020A45; GB:M1951; GB:J04069; GB:M20
A:Accession: S35874
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-52 <H02>
A:Cross-references: UNIPARC:UPI000011613C; EMBL:X71921; NID:G393422; PIDN:CAA50737.1; P
A:Accession: I48463
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-52 <RES>
A:Cross-references: UNIPARC:UPI000011613C; EMBL:X71921; NID:G393422; PIDN:CAA50737.1; P
A:Accession: I48464
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 103-180 <RE3>
A:Cross-references: UNIPARC:UPI000011613D; EMBL:X71922; NID:G393424; PIDN:CAA50738.1; P
R:Tollfesen, S.E.; Sadow, J.L.; Rotwein, P.
Proc. Natl. Acad. Sci. U.S.A. 86, 1543-1547, 1989
A:Title: Coordinate expression of insulin-like growth factor II and its receptor during
A:Reference number: I59137; MIMD:89160812; PMID:2537977
A:Accession: I59137
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-52 <RE2>
A:Cross-references: UNIPARC:UPI000011613C; GB:M24633; NID:G341211; PIDN:AAA37923.1; PID
C:Gene: IGF-2
C:Superfamily: Insulin
C:Keywords: growth factor
Query Match 100.0%; Score 185; DB 2; Length 180;
Best Local Similarity 100.0%; Pred. No. 2.6e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

RESULT 4

IGH2
 Insulin-like growth factor II precursor [validated] - human
 N/Alternate names: somatomedin A
 C/Species: Homo sapiens (man)
 C/Date: 24-Apr-1984 #sequence revision 15-Nov-1984 #text change 09-Jul-2004
 C/Accession: B23614, A93339, X58300, A30155, I56957, A93338, A91448, B60483, A33845, A61
 R/de Pgtcr-Holthuisen, P.; van Schaik, F.M.A.; Verdulijn, G.M.; van Ommen, G.J.B.; Bouma
 FEBS Lett. 195, 179-184, 1986
 A/Title: Organization of the human genes for insulin-like growth factors I and II.
 A/Reference number: A91356; MUID:86108862; PMID:3002851
 A/Accession: B23614
 A/Molecule type: DNA
 A/Residues: 1-180 <DEP>
 A/Cross-references: UNIPROT:P01344; UNIPARC:UPI0000000965
 R/Dull, T.J.; Gray, A.; Hayflick, J.S.; Ullrich, A.
 Nature 310, 777-781, 1984
 A/Title: Insulin-like growth factor II precursor gene organization in relation to insulin
 A/Reference number: A93339; MUID:84295593; PMID:6382022
 A/Accession: A93339
 A/Molecule type: DNA
 A/Residues: 1-180 <DUJ>
 A/Cross-references: UNIPARC:UPI0000000965; GB:M14118; NID:g183094; PIDN:AAA52535.1; PID:
 R/Jimlinger, J.C.; Rosen, K.M.; Humbel, R.E.; Villa-Komaroff, L.
 Proc. Natl. Acad. Sci. U.S.A. 84, 6330-6334, 1987
 A/Title: Tissue-specific expression of insulin-like growth factor II mRNAs with distinct
 A/Accession number: A28300; MUID:87317645; PMID:3476948
 A/Reference number: A28300
 A/Molecule type: mRNA
 A/Residues: 1-180 <IRM>
 A/Cross-references: UNIPARC:UPI0000000965; GB:M17426; NID:g189954; PIDN:AAA6008.1; PID:
 R/Shen, S.J.; Daimon, M.; Wang, C.Y.; Jansen, M.; Ilan, J.
 Proc. Natl. Acad. Sci. U.S.A. 85, 1947-1951, 1988
 A/Title: Isolation of an insulin-like growth factor II cDNA with a unique 5' untranslated
 A/Reference number: A30155; MUID:88158110; PMID:2450353
 A/Accession: A30155
 A/Molecule type: mRNA
 A/Residues: 1-180 <SHE>
 A/Cross-references: UNIPARC:UPI0000000965; GB:U03242; NID:g183123; PIDN:AAA52545.1; PID:
 R/Hagiwara, K.; Kobayashi, T.; Tobita, M.; Kikyo, N.; Yazaki, Y.; Okabe, T.
 Jpn. J. Cancer Res. 86, 202-207, 1995
 A/Title: Isolation of a cDNA for a growth factor of vascular endothelial cells from huma
 A/Reference number: I56957; MUID:95247546; PMID:7730145
 A/Accession: I56957
 A/Status: translated from GB/EMBL/DBJ
 A/Residues: 1-180 <HAG>
 A/Molecule type: mRNA
 A/Cross-references: UNIPARC:UPI0000000965; GB:S77035; NID:g914191; PIDN:AAA34155.1; PID:
 A/Experimental source: Lung cancer cell line T3M-11
 R/Bell, G.I.; Merryweather, J.P.; Sanchez-Pescador, R.; Stempfen, M.M.; Priestley, L.; S
 Nature 310, 775-777, 1984
 A/Title: Sequence of a cDNA clone encoding human preproinsulin-like growth factor II.
 A/Reference number: A93338; MUID:84295593; PMID:6382021
 A/Accession: A93338
 A/Molecule type: mRNA
 A/Residues: 1-180 <BEL>
 A/Cross-references: UNIPARC:UPI0000000965; GB:X00910; GB:M17862; NID:g32995; PIDN:CAA254
 R/Kinderknecht, B.; Humbel, R.E.
 FEBS Lett. 89, 283-286, 1978
 A/Title: Primary structure of human insulin-like growth factor II.
 A/Reference number: A91448; MUID:78191259; PMID:658418
 A/Accession: A91448
 A/Molecule type: protein
 A/Residues: 25-91 <RIN>
 A/Cross-references: UNIPARC:UPI000002CB81
 R/Karay, K.P.; Marguaret, H.; Siraaku, D.A.
 Blood 74, 1084-1092, 1989
 A/Title: Human platelet-derived mitogens. Identification of insulinlike growth factors I
 A/Reference number: A60483; MUID:89333462; PMID:2752153
 A/Accession: B60483
 A/Molecule type: protein

A/Residues: 25-32, 'X', 34-44 <KAR>
 A/Cross-references: UNIPARC:UPI000017358A
 A/Experimental source: Platelet lysate
 R/Smith, M.C.; Cook, J.A.; Furman, T.C.; Occolowicz, J.L.
 J. Biol. Chem. 264, 9314-9321, 1989
 A/Title: Structure and activity dependence of recombinant human insulin-like growth fac
 A/Reference number: A33845; MUID:89255428; PMID:2728286
 A/Accession: A33845
 A/Molecule type: protein
 A/Residues: 25-91 <SMI>
 A/Cross-references: UNIPARC:UPI000002CB81
 R/Mohan, S.
 Growth Factors 2, 267-271, 1990
 A/Title: A simple and efficient scheme for the purification of insulin-like growth fact
 A/Reference number: A61037; MUID:90248152; PMID:2337472
 A/Accession: A61037
 A/Molecule type: protein
 A/Residues: 25-32 <MOH>
 A/Cross-references: UNIPARC:UPI000017358B
 A/Note: this protein was purified from bone, where it comprises 0.1 % of total protein
 R/Jansen, M.; van Schaik, F.M.; van Tol, H.; van den Brande, J.L.; Sussenbach, J.S.
 FEBS Lett. 179, 243-246, 1985
 A/Title: Nucleotide sequences of cDNAs encoding precursors of human insulin-like growth
 A/Reference number: I53458; MUID:85102019; PMID:3881277
 A/Accession: I53458
 A/Status: translated from GB/EMBL/DBJ
 A/Molecule type: mRNA
 A/Residues: 1-180 <REBS>
 A/Cross-references: UNIPARC:UPI0000000965; GB:M17862; NID:g32995; PIDN:CAA25426.1; PID:
 A/Note: an alternatively spliced form was also found, in which 53-Ser is replaced by Ar
 R/Rall, L.B.; Scott, J.; Bell, G.I.
 Meth. Enzymol. 146, 239-248, 1987
 A/Title: Human insulin-like growth factor I and II messenger RNA: isolation of compleme
 A/Reference number: I57044; MUID:88065102; PMID:3683205
 A/Accession: I57045
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: mRNA
 A/Residues: 1-2, 'W', 4-180 <RE3>
 A/Cross-references: UNIPARC:UPI000016A990; GB:M29645; NID:g183121; PIDN:AAA52544.1; PID
 R/Gray, A.; Tam, A.W.; Dull, T.J.; Hayflick, J.; Pintar, J.; Cavenee, W.K.; Koufos, A.;
 DNA 6, 283-295, 1987
 A/Title: Tissue-specific and developmentally regulated transcription of the insulin-lik
 A/Reference number: I52978; MUID:88003966; PMID:3652904
 A/Accession: I52978
 A/Status: translated from GB/EMBL/DBJ
 A/Molecule type: DNA
 A/Residues: 1-52 <RE2>
 A/Cross-references: UNIPARC:UPI000016A98B; GB:M22373; NID:g183100; PIDN:AAA52536.1; PID
 C/Genetic8
 A/Gene: GDB:IGF2
 A/Cross-references: GDB:119331; OMIM:147470
 A/Map position: 11p15.5-11p15.5
 C/Superfamily: insulin
 C/Keywords: alternative splicing; angiogenesis; growth factor; monomer
 F:1-24/Domain: signal sequence #status predicted <SIG>
 F:25-91/Product: insulin-like growth factor II #status experimental <MAT>
 F:92-180/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
 F:33-71, 45-84, 70-75/Disulfide bonds: #status experimental

Query Match 81.1%; Score 150; DB 14; Length 180;
 Best Local Similarity 79.4%; Pred. No. 3.1e-14;
 Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPFRYPVGFQFYDTMROSAGRL 34
 Db 93 DVSTPPTVLPDNPFRYPVGFQFYDTMKSSTQRL 126

RESULT 5
 B60738
 Insulin-like growth factor II precursor - pig
 C/Species: Sus scrofa domestica (domestic pig)
 C/Date: 18-Apr-1993 #sequence revision 30-Sep-1993 #text change 13-Nov-1998

C/Accession: S12614, B60738
R/Catchpole, I.R.; Engstrom, W.
Nucleic Acids Res. 18, 6430, 1990
A/Title: Nucleotide sequence of a porcine insulin-like growth factor II cDNA.
A/Reference number: S12614; MUID:91057136; PMID:2243790
A/Accession: S12614
A/Molecule type: mRNA
A/Residues: 1-181 <CAT>
A/Cross-references: UNIPARC:UPI0000176673
R/Francis, G.L.; Owens, P.C.; McNeill, K.A.; Wallace, J.C.; Ballard, F.J.
J. Endocrinol. 122, 681-687, 1989
A/Title: Purification, amino acid sequences and assay cross-reactivities of porcine insulin
A/Reference number: A60738; MUID:90039035; PMID:2809477
A/Accession: B60738
A/Molecule type: protein
A/Residues: 25-79, 'X', 'I', 'A' <FRA>
A/Cross-references: UNIPARC:UPI0000176674
C/Superfamily: insulin
F/1-24/Domain: signal sequence #status predicted <SIG>
F/25-91/Product: insulin-like growth factor II #status experimental <MAT>
F/92-181/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
F/33-71,45-84,70-75/Disulfide bonds: #status predicted

Query Match 81.1%; Score 150; DB 2; Length 181;
Best Local Similarity 79.4%; Pred. No. 3,1e-14;
Matches 27; Conservative 3; Mismatches 4; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPFRYPVGKFFQYDTWROSAGRL 34
Db 93 DVSTPPTVLPDDNPFRRYPVGKFFQYDTWROSAGRL 126

RESULT 6
167610
insulin-like growth factor II, domains A-E - human
C/Species: Homo sapiens (man)
C/Date: 04-Oct-1996 #sequence, revision 04-Oct-1996 #text, change 16-Jul-1999
C/Accession: 167610
R/Janzen, M.; van Schaik, F.M.; van Tol, H.; van den Brande, J.L.; Sussenbach, J.S.
FEBS Lett. 179, 243-246, 1985
A/Title: Nucleotide sequences of cDNAs encoding precursors of human insulin-like growth
A/Reference number: 153458; MUID:85102019; PMID:3881277
A/Accession: 167610
A/Status: preliminary; translated from GB/EMBL/DBJ
A/Molecule type: mRNA
A/Residues: 1-183 <RES>
A/Cross-references: UNIPARC:UPI000016A8E9; GB:M17863; NID:g182527; PIDN:AAA52443.1; PID:
C/Genetics:
A/Gene: GDB:IGF2
A/Cross-references: GDB:119331; OMIM:147470
A/Map position: 11p15.5-11p15.5
C/Superfamily: insulin

Query Match 81.1%; Score 150; DB 2; Length 183;
Best Local Similarity 79.4%; Pred. No. 3,1e-14;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPFRYPVGKFFQYDTWROSAGRL 34
Db 96 DVSTPPTVLPDDNPFRRYPVGKFFQYDTWROSAGRL 129

RESULT 7
S02423
insulin-like growth factor II precursor, splice form II - human
N/Alternate names: somatomedin A
C/Species: Homo sapiens (man)
C/Date: 28-Feb-1990 #sequence, revision 28-Feb-1990 #text, change 09-Jul-2004
C/Accession: S02423; S03383; A34439
R/Le Bouc, Y.; Noguiez, P.; Sondermeijer, P.; Dreyer, D.; Girard, F.; Binoux, M.
FEBS Lett. 222, 181-185, 1987
A/Title: A new 5'-non-coding region for human placental insulin-like growth factor II mRNA
A/Reference number: S02423; MUID:88005137; PMID:3653397

A/Accession: S02423
A/Status: not compared with conceptual translation
A/Molecule type: mRNA
A/Residues: 1-183 <LEI>
A/Cross-references: UNIPROT:P01344; UNIPARC:UPI000002ABE8; EMBL:Y00693
A/Note: 53-Ser was also found instead of residues 53-56 (Arg-Leu-Pro-Gly)
R/de Pagter-Holthuijzen, P.; Jansen, M.; van der Kammen, R.A.; van Schaik, F.M.A.; Sussenbach, J.
Biochim. Biophys. Acta 950, 282-295, 1988
A/Title: Differential expression of the human insulin-like growth factor II gene. Charac
A/Reference number: S03383; MUID:89000779; PMID:3167054
A/Accession: S03383
A/Status: translation not shown
A/Molecule type: DNA
A/Residues: 106-183 <DEP>
A/Cross-references: UNIPARC:UPI000016AAE7; EMBL:X07668; NID:g32998; PIDN:CAA30717.1; PI
R/Hampton, B.; Burgess, W.H.; Marshak, D.R.; Cullen, K.O.; Perdue, J.F.
J. Biol. Chem. 264, 19155-19160, 1989
A/Title: Purification and characterization of an insulin-like growth factor II variant
A/Reference number: A34439; MUID:90037048; PMID:2553732
A/Accession: A34439
A/Molecule type: protein
A/Residues: 25-32, 'X', 'I', 'A', 'E' <HAM>
A/Cross-references: UNIPARC:UPI0000176678
C/Genetics:
A/Gene: GDB:IGF2
A/Cross-references: GDB:119331; OMIM:147470
A/Map position: 11p15.5-11p15.5
C/Superfamily: insulin
C/Keywords: growth factor
F/1-24/Domain: signal sequence #status predicted <SIG>
F/25-94/Product: insulin-like growth factor II #status predicted <MAT>
F/25-59/Domain: insulin chain B-like #status predicted <DOB>
F/60-67/Domain: insulin connecting C peptide-like #status predicted <CEP>
F/68-88/Domain: insulin chain A-like #status predicted <DOA>
F/89-94/Domain: D peptide #status predicted <DOB>
F/95-183/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>
F/33-74,45-87,73-78/Disulfide bonds: #status predicted

Query Match 81.1%; Score 150; DB 2; Length 183;
Best Local Similarity 79.4%; Pred. No. 3,1e-14;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPFRYPVGKFFQYDTWROSAGRL 34
Db 96 DVSTPPTVLPDDNPFRRYPVGKFFQYDTWROSAGRL 129

RESULT 8
S04858
insulin-like growth factor II precursor - sheep
C/Species: Ovis orientalis aries, Ovis aries (domestic sheep)
C/Date: 07-Jun-1990 #sequence, revision 07-Jun-1990 #text, change 09-Jul-2004
C/Accession: S04858; S10984; S20731; S04972; S32557; S32558; A61008; S08567
R/O'Mahoney, J.V.; Adams, T.E.
Nucleic Acids Res. 17, 5397, 1989
A/Title: Nucleotide sequence of an ovine insulin-like growth factor-II cDNA.
A/Reference number: S04858; MUID:89345107; PMID:2762134
A/Accession: S04858
A/Molecule type: mRNA
A/Residues: 1-179 <OMA>
A/Cross-references: UNIPROT:P10764; UNIPARC:UPI000012D40F; EMBL:X15248; NID:g1802; PIDN
R/Brown, W.M.; Dieglelewska, K.M.; Foreman, R.C.; Saunders, N.R.
Nucleic Acids Res. 18, 4614, 1990
A/Title: The nucleotide and deduced amino acid sequences of insulin-like growth factor
A/Reference number: S10983; MUID:90356421; PMID:2388846
A/Accession: S10984
A/Molecule type: mRNA
A/Residues: 1-179 <DEP>
A/Cross-references: UNIPARC:UPI000012D40F; EMBL:X33554; NID:g18262; PIDN:CAA37621.1; PID
R/Olsen, S.M.; Wong, E.A.
Submitted to the EMBL Data Library, September 1990
A/Reference number: S20731
A/Accession: S20731

A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-179 <OHL>
A:Cross-references: UNIPARC:UPI000012D40F; EMBL:X55638; NID:91266; PIDN:CAA39163.1; PID:
R:Hey, A.W.; Browne, C.A.; Simpson, R.J.; Thorburn, G.D.
Biochim. Biophys. Acta 997, 27-35, 1989
A:Title: Simultaneous isolation of insulin-like growth factors I and II from adult sheep
A:Reference number: S04972; MUID:89322215; PMID:2752053
A:Accession: S04972
A:Molecule type: protein
A:Residues: 25-58 <HEY>
A:Cross-references: UNIPARC:UPI0000176675
R:Demmer, J.; Hill, D.F.; Petersen, G.B.
Biochim. Biophys. Acta 1173, 79-80, 1993
A:Title: Characterization of two sheep insulin-like growth factor II cDNAs with different
A:Reference number: S32557; MUID:93250051; PMID:8485157
A:Accession: S32557
A:Status: nucleic acid sequence not shown; translation not shown
A:Molecule type: mRNA
A:Residues: 1-179 <DEM>
A:Cross-references: UNIPARC:UPI000012D40F; EMBL:M89788; NID:9165940; PIDN:AAA31548.1; PI
A:Note: The nucleotide sequence was submitted to the EMBL Data Library, March 1992
A:Accession: S32558
A:Status: preliminary; nucleic acid sequence not shown; translation not shown
A:Molecule type: mRNA
A:Residues: 1-120 <DE2>
A:Cross-references: UNIPARC:UPI000016C4C4; EMBL:M89789; NID:9165942; PIDN:AAA31549.1; PI
A:Note: The nucleotide sequence was submitted to the EMBL Data Library, March 1992
R:Strazek, J.; Heulin, M.H.; Chenuit, A.M.; Belleville, F.; Nabet, P.; Denoroy, L.; Bare
J. Chromatogr. 533, 35-46, 1990
A:Title: Application of preparative high-performance liquid chromatography to the purifi
cation of
A:Reference number: A61008; MUID:91185520; PMID:2081780
A:Accession: A61008
A:Molecule type: protein
A:Residues: 25-32, 'X', 34-44, 'X', 46-55, 'X', 57, 'X', 59-60 <STR>
A:Cross-references: UNIPARC:UPI0000176676
R:Francis, G.L.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.; Owens, P.C.
Endocrinology 124, 1173-1183, 1989
A:Title: Sheep insulin-like growth factors I and II: sequences, activities and assays.
A:Reference number: S07198; MUID:89136887; PMID:2537174
A:Accession: S08567
A:Molecule type: protein
A:Residues: 25-45, 'D', 48-91 <FRA>
A:Cross-references: UNIPARC:UPI0000176677
A:Experimental source: fetal serum
C:Superfamily: Insulin
C:Keywords: growth factor; plasma
F:1-24/Domain: signal sequence #status predicted <SIG>
F:25-91/Product: insulin-like growth factor II #status experimental <MAT>
F:25-52/Domain: insulin chain B-like #status predicted <DOB>
F:53-64/Domain: insulin connecting peptide-like #status predicted <CHC>
F:65-85/Domain: insulin chain A-like #status predicted <DOA>
F:86-91/Domain: D peptide #status predicted <CHD>
F:92-179/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CPR>
F:93-71, 45-84, 70-75/Disulfide bonds: #status predicted
Query Match 71.4%; Score 132; DB 2; Length 179;
Best Local Similarity 73.5%; Pred. No. 1, 2e-11;
Matches 25; Conservative 1; Mismatches 8; Indels 0; Gaps 0;
OY 1 DVSTQAIVLPDDPPRYVGVKFGFYDTWRQSGAGRL 34
DB 93 DVASSTVLPDDPTAYVGVKFGFYDTWRQSGAGRL 126
RESULT 9
IG802
Insulin-like growth factor II precursor - bovine
N:Alternate names: IGF-II
C:Species: Bos primigenius taurus (cattle)
C>Date: 31-Mar-1988 #sequence_revision 22-Apr-1995 #text_change 09-Jul-2004

C:Accession: S10983; S37617; B25623; A34645; S00466; A57470
R:Brown, W.M.; Dziegielewska, K.M.; Foreman, R.C.; Saunders, N.R.
Nucleic Acids Res. 19, 4614, 1990
A:Title: The nucleotide and deduced amino acid sequences of insulin-like growth factor
A:Reference number: S10983; MUID:90356421; PMID:2388846
A:Accession: S10983
A:Molecule type: mRNA
A:Residues: 6-155 <BR2>
A:Cross-references: UNIPARC:UPI000016C328; EMBL:X53553; NID:9459; PIDN:
A:Experimental source: liver
R:Congote, L.F.; Mazza, L.; Palfrey, R.G.E.
Comp. Biochem. Physiol. B 103, 127-131, 1992
A:Title: Nucleotide sequence of the central coding region of bovine erythropoietin/insulin
time of hepatic erythropoiesis.
A:Reference number: S37617; MUID:93083057; PMID:1280544
A:Accession: S37617
A:Molecule type: mRNA
A:Residues: 6-62 <CON>
A:Cross-references: UNIPARC:UPI000016C329; EMBL:X53867; NID:9461; PIDN:CAA37861.1; PID:
R:Honninger, A.; Hummel, R.E.
J. Biol. Chem. 261, 569-575, 1986
A:Title: Insulin-like growth factors I and II in fetal and adult bovine serum. Purifica
A:Reference number: A92585; MUID:86085881; PMID:3941093
A:Accession: B25623
A:Molecule type: protein
A:Residues: 1-34, 'S', 36-67 <HON>
A:Cross-references: UNIPARC:UPI000017358C
R:Li, Q.; Blacher, R.; Esch, F.; Congote, L.F.
Biochem. Biophys. Res. Commun. 166, 557-561, 1990
A:Title: A heparin-binding erythroid cell stimulating factor from fetal bovine serum ha
A:Reference number: A34645; MUID:90147754; PMID:2302223
A:Accession: A34645
A:Molecule type: protein
A:Residues: 1-8, 'X', 10-20, 'X', 22-31 <LIO>
A:Cross-references: UNIPARC:UPI000017358D
R:Francis, G.L.; Upson, F.M.; Ballard, F.J.; McNeil, K.A.; Wallace, J.C.
Biochem. J. 251, 95-103, 1988
A:Title: Insulin-like growth factors 1 and 2 in bovine colostrum. Sequences and biologi
A:Reference number: S00465; MUID:88268820; PMID:3390164
A:Accession: S00466
A:Molecule type: protein
A:Residues: 1-67 <FRA>
A:Cross-references: UNIPARC:UPI0000141BC9
R:Valenzano, K.J.; Remmiller, J.; Lobel, P.
J. Biol. Chem. 270, 16441-16448, 1995
A:Title: Soluble insulin-like growth factor II/mannose 6-phosphate receptor carries mul
A:Reference number: A57470; MUID:95332360; PMID:7608216
A:Accession: A57470
A:Status: preliminary
A:Molecule type: protein
A:Residues: 1-5 <VAL>
A:Cross-references: UNIPARC:UPI000017358E
C:Superfamily: Insulin
C:Keywords: colostrum; growth factor; heparin binding; mitogen; plasma
F:1-67/Product: insulin-like growth factor II #status experimental <MAT>
F:1-27/Domain: insulin B chain-like #status experimental <DOB>
F:28-40/Domain: insulin connecting C peptide-like #status experimental <CHC>
F:41-61/Domain: insulin A chain-like #status experimental <DOA>
F:62-67/Domain: D peptide #status experimental <CHD>
F:68-155/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CPR>
F:9-47, 21-60, 46-51/Disulfide bonds: #status predicted
Query Match 69.2%; Score 128; DB 1; Length 155;
Best Local Similarity 70.6%; Pred. No. 4e-11;
Matches 24; Conservative 1; Mismatches 9; Indels 0; Gaps 0;
OY 1 DVSTQAIVLPDDPPRYVGVKFGFYDTWRQSGAGRL 34
DB 69 DVASSTVLPDDPTAYVGVKFGFYDTWRQSGAGRL 102
RESULT 10

I53642
insulin-like growth factor II precursor - horse (fragment)
C:Species: Equus caballus (domestic horse)
C>Date: 15-Oct-1996 #sequence_revision 15-Oct-1996 #text_change 09-Jul-2004
C/Accession: I53642
R/Octet: K.; Engstrom, W.
Gen. Comp. Endocrinol. 96, 270-275, 1994
A>Title: Insulin-like growth factor II in the horse: determination of a cDNA nucleotide
A/Reference number: I53642; MUID:95154655; PMID:7851727
A/Accession: I53642
A/Status: preliminary; translated from GB/EMBL/DBJ
A/Molecule type: mRNA
A/Residues: 1-93 <OTT>
A/Cross-references: UNIPROT:P51459; UNIPARC:UPI000016C420; EMBL:U11241; NID:9508703; PID
C:Gene: IGF-II
C:Superfamily: Insulin

Query Match 53.5%; Score 99; DB 2; Length 93;
Best Local Similarity 76.0%; Pred. No. 3.6e-07;
Matches 19; Conservative 1; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRYVGVKFFQYD 25
Db 69 DVSTPPTVLPDDSPRYVGVKRFQYN 93

RESULT 11
T46194
hypothetical protein T8P19.10 - Arabidopsis thaliana (fragment)
C:Species: Arabidopsis thaliana (mouse-ear cress)
C>Date: 04-Feb-2000 #sequence_revision 04-Feb-2000 #text_change 09-Jul-2004
C/Accession: T46194
R/Chotene, N.; Robert, C.; Broctier, P.; Wincker, P.; Catolico, L.; Artiguenave, F.; Sa
Submitted to the Protein Sequence Database, December 1999
A/Reference number: Z23008
A/Accession: T46194
A/Status: preliminary
A/Molecule type: DNA
A/Residues: 1-206 <CHO>
A/Cross-references: UNIPROT:Q9SMP7; UNIPARC:UPI00000A1F7E; EMBL:AL133315
C:Experimental source: cultivar Columbia; BAC clone T8P19
C:Genetics:
A/Map position: 3
A/Note: T8P19.10

Query Match 28.6%; Score 53; DB 2; Length 206;
Best Local Similarity 39.0%; Pred. No. 4.2;
Matches 16; Conservative 4; Mismatches 7; Indels 14; Gaps 3;

QY 1 DVSTSQAVLPDDPPRYVGVKFF-----QYDTW 27
Db 65 DVSTSQLGLPLRPGRYKPGSFQKQYDPTSLVGYDYW 105

RESULT 12
YTBST
tunicamycin resistance protein - Bacillus subtilis
C:Species: Bacillus subtilis
C>Date: 30-Jun-1989 #sequence_revision 02-Jul-1998 #text_change 09-Jul-2004
C/Accession: E69724; J70240
R/Kunze, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Bertier
C.; Bron, S.; Brouillet, S.; Brusch, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Cho
A.; Ehrlich, S.D.; Emmerston, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, E.
Nature 390, 249-256, 1997
A/Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galiszi, A.; Gallier
iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F.
Koelter, P.; Koningsstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidis, A.; Lardinois,
A/Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maueil
Y, M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portecelle
Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon,
A/Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Serch
Akeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchiyama,

T.; Winters, P.; Wipac, A.; Yamamoto, H.; Yamane, K.; Yasunoto, K.; Yata, K.; Yoshida, T.
A/Authors: Yoshikawa, H.F.; Zamestein, E.; Yoshikawa, H.; Darchin, A. Bacillus subtilis.
A>Title: The complete genome sequence of the Gram-positive bacterium Bacillus subtilis.
A/Reference number: A69580; MUID:98044033; PMID:9384377
A/Accession: E69724
A/Status: nucleic acid sequence not shown; translation not shown
A/Molecule type: DNA
A/Residues: 1-197 <KUN>
A/Cross-references: UNIPROT:P12921; UNIPARC:UPI00005FEE1; GB:Z99105; GB:AL009126; NID:
A/Experimental source: strain 168
R/Harada, S.; Yoda, K.; Mori, M.; Tanimoto, A.; Furusato, T.; Yamane, K.; Takatsuki, A.
Agric. Biol. Chem. 52, 1785-1789, 1988
A>Title: The gene responsible for tunicamycin resistance, tmrB, in Bacillus subtilis.
A/Reference number: J70240
A/Accession: J70240
A/Molecule type: DNA
A/Residues: 'MINKGEMA', 1-32, 'E', 34-197 <HAR>
A/Cross-references: UNIPARC:UPI000016E9B; DDBJ:DJ13793; DDBJ:DD00343; NID:9216349; PIDN:
A/Note: the authors are uncertain which methionine is the initiator
R/Noda, Y.; Yoda, K.; Takatsuki, A.; Yamasaki, M.
J. Bacteriol. 174, 4302-4307, 1992
A>Title: TmrB protein, responsible for tunicamycin resistance of Bacillus subtilis, is
A/Reference number: A42886; MUID:92325013; PMID:1624425
A/Contents: annotation
C:Genetics:
A/Gene: tmrB
C:Superfamily: tunicamycin resistance protein
C/Keywords: antibiotic resistance; ATP binding; nucleotide binding; P-loop
F/7-14/Region: nucleotide-binding motif A (P-loop)
F/180-197/Domain: amphipathic helix #status predicted <APH>

Query Match 27.8%; Score 51.5; DB 1; Length 197;
Best Local Similarity 36.7%; Pred. No. 6.6;
Matches 11; Conservative 4; Mismatches 8; Indels 7; Gaps 1;

QY 6 QAVLPDDPPRYVGVKFFQY-----DTWR 28
Db 45 QETAKDDFQSYPLMRAPNYSLSALDTYR 74

RESULT 13
T47529
hypothetical protein F16L2.100 - Arabidopsis thaliana
C:Species: Arabidopsis thaliana (mouse-ear cress)
C>Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 09-Jul-2004
C/Accession: T47529
R/Jordan, N.; Bangert, S.; Wiedemann, R.; Voss, H.; Unsel, M.; Mewes, H.W.; Rudd, S.;
Submitted to the Protein Sequence Database, March 2000
A/Reference number: Z24468
A/Accession: T47529
A/Status: preliminary
A/Molecule type: DNA
A/Residues: 1-631 <JOR>
A/Cross-references: UNIPROT:Q9LZU1; UNIPARC:UPI0000A8D97; EMBL:AL162459
C:Experimental source: cultivar Columbia; BAC clone F16L2
C:Genetics:
A/Map position: 3
A/Intons: 234/3; 326/3; 372/3; 435/1; 473/3; 532/3
A/Note: F16L2.100

Query Match 27.6%; Score 51; DB 2; Length 631;
Best Local Similarity 32.1%; Pred. No. 29;
Matches 9; Conservative 4; Mismatches 15; Indels 0; Gaps 0;

QY 5 SQAVLPDDPPRYVGVKFFQYDTWRQAG 32
Db 195 TQFLPBGFPNSTYSDYLSLWRGVG 222

RESULT 14
T00958
hypothetical protein F20D22.8 - Arabidopsis thaliana
C:Species: Arabidopsis thaliana (mouse-ear cress)

```
C;Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 09-Jul-2004
```

C; Accession: T00958

R. Vysotskaya, V.S. Osipov, B.I. Schwartz, J.R. Tostlund, M. Kwon, A. Yu, G. Oji, K. Peng, J. Kim, C. Kurtz, D. Li, Y. Palm, C.J. Shinn, P. Sun, H. Davis, R.W. submitted to the EMBL Data Library, May 1998

A/Description: Arabidopsis thaliana chromosome 1 BAC F2022 complete sequence
A/Reference number: Z14214

A;Reference number: Z14214

A;Accession: T00958

A;Status: translated from GB/EMBL/DBJ

A;Molecule type: DNA

A;Residues: 1-1012 <VYS>

A/Cross-references: UNIPROT:O64492; UNIPARC:UPI00000481BD; EMBL:AC002411; NID:g2570223;

A;Gene: ATSP:F20D22.8

A;Map position: 1

C;Superfamily: Arabidopsis thaliana hypothetical protein F20D22.8

Query Match	Score	DB 2	Length
27.3%	50.5	1012	

Best Local Similarity 31.0%; Pred. No. 57;

Matches 13; Conservative 8; Mismatches 12; Indels 9; Gaps 2;

2 VSTSQAVLPD---DFPRYPVGKFF---QYDTWRQSGRL 34 QY

Db 886 ISHAETVFPDELD EEFDTPTSRGFDVVRMRDRVRSIAGRV 927

RESULT 15

T31352

hypothetical protein - Pelargonium x hortorum

C;Species: Pelargonium x hortorum

C:\Date: 02-Sep-2000 #sequence_revision 02-Sep-2000 #text_change 31-Dec-2004

C;Accession: T31352

R;Downie, S.R.; Katz-Downie, D.S.; Wolfe, K.H.; Calie, P.J.; Palmer, J.D.
Curr Genet 35 367-378 1994

Curr. Genet. 25, 367-378, 1994

A;Title: Structure and evolution of the largest chloroplast gene (ORF2280): internal pla
A;Reference number: Z21013: MUID-94363755: PMID-8082181

A: Accession: T31352
A: Reference number: Z21012; MUID: 94363/55; PMID: 8082181

A;Accession: 131352

A: Molecule type: DNA
A: status: preliminary; translated from GB/EMBL/DB

A;Residues: 1-2109 <DOW>

A; Cross-references: UNIFORM

C:Superfamily: Protein ycf2

10/10/1911

Query Match	27.34;	Score 50.5;	DB 2;	Length 2109;
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Best Local Similarity 40.7%; Pred. No. 1.3e+02;

Matches 11; Conservative 5; Mismatches 6; Indels 5; Gaps 1;

QY 5 SQAVLPDDFP-----RYPVGKFFQYDT 26

Db 790 SKILPDDFPOSGDERYNLCKSFHEPT 816

Search completed: May 21, 2006, 12:46:52

Job time : 20.6667 secs

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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:31:30 ; Search time 162.333 Seconds

(without alignments)
193.740 Million cell updates/sec

Title: US-10-632-366-3

Perfect score: 185
Sequence: 1 DVSTSQAVLDDFPYVKGKFPYDTWRQSGRL 34

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2849598 seqs, 925015592 residues

Total number of hits satisfying chosen parameters: 2849598

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Uniprot 7.2:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	185	100.0	180	1	IGF2_MOUSE
2	185	100.0	180	2	Q2IDG5_MOUSE
3	185	100.0	191	2	Q2IDG7_MOUSE
4	177	95.7	154	2	Q63265_RAT
5	177	95.7	180	1	IGF2_RAT
6	156	84.3	128	1	IGF2_CAVPO
7	154	83.2	129	1	IGF2_MUSVI
8	150	81.1	180	1	IGF2_HUMAN
9	150	81.1	181	1	IGF2_PIG
10	143	77.3	123	2	Q8MJU5_PIG
11	132	71.4	179	1	IGF2_SHEEP
12	130	70.3	78	2	Q5WTF7_RAT
13	128	69.2	104	2	Q862E7_BOVIN
14	128	69.2	141	2	Q862E1_BOVIN
15	128	69.2	149	2	Q9MTX4_BOVIN
16	128	69.2	155	1	IGF2_BOVIN
17	123	66.5	113	2	Q9N1S5_CAPCA
18	123	66.5	184	2	Q673E2_DIDMA
19	122	65.9	115	2	Q5O0K5_BOVUS
20	122	65.9	181	1	IGF2_HORSE
21	119	64.3	106	2	Q9MTZ6_TRIVU
22	99	53.5	62	2	Q9XW88_HORSE
23	92	49.7	57	2	Q28237_CEREL
24	59	31.9	298	2	Q5W1U0_BACGR
25	59	31.9	930	2	Q4SVY4_GVIRU
26	59	31.9	930	2	Q63Y08_BURPS
27	58.5	31.6	951	2	Q7ZTD6_GALL
28	58	31.4	185	2	Q8XW68_RALCO
29	55.5	30.0	151	2	Q9N171_ORNAN
30	55.5	30.0	239	2	Q673F3_ORNAN
31	55	29.7	675	2	Q4G0K0_HUMAN

32	55	29.7	717	1	CTLS_MACFA	Q95W2	macaca fasc
33	55	29.7	719	1	CTLS_HUMAN	Q8NC57	homo sapien
34	54.5	29.5	122	2	Q8NMF3_GMANM	Q8WMP3	tachyglousu
35	54.5	29.5	539	2	Q7S413_NEUR	Q7S413	neurospora
36	54.5	29.5	952	2	Q9NH28_HELPN	Q9NH28	helicoverpa
37	54	29.2	252	2	Q3A3B5_BELCD	Q3A3B5	peliopecter
38	54	29.2	620	2	Q5SF87_DICDI	Q5SF87	dictyosteli
39	53.5	28.9	191	2	Q403K4_9CONI	Q403K4	taxodium di
40	53.5	28.9	191	2	Q403K5_9CONI	Q403K5	taxodium di
41	53.5	28.9	191	2	Q403K8_9CONI	Q403K8	taxodium di
42	53.5	28.9	191	2	Q403K9_9CONI	Q403K9	taxodium di
43	53.5	28.9	191	2	Q403L2_9CONI	Q403L2	taxodium di
44	53.5	28.9	191	2	Q403L3_9CONI	Q403L3	taxodium di
45	53.5	28.9	191	2	Q8LSV8_9CONI	Q8LSV8	taxodium di

ALIGNMENTS

RESULT 1
IGF2_MOUSE
ID IGF2_MOUSE STANDARD; PRT; 180 AA.
AC P09535;
DT 01-JUL-1989, integrated into UniProtKB/Swiss-Prot.
DT 01-JUL-1989, sequence version 1.
DT 07-FEB-2006, entry version 57.
DE Insulin-like growth factor II precursor (Multiplication-stimulating polypeptide) (IGF-II).
GN Name=Igf2; Synonyms=Igf-2;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi; OC Muroidae; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=87053171; PubMed=3780370;
RA Stempien M.M., Fong N.M., Rall L.B., Bell G.I.;
RT "Sequence of a placental cDNA encoding the mouse insulin-like growth factor II precursor."
RL DNA 5:357-361(1986).
[2]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=91090843; PubMed=1702294;
RA Rotwein P., Hall L.U.;
RT "Evolution of insulin-like growth factor II: characterization of the mouse IGF-II gene and identification of two pseudo-exons."
RL DNA Cell Biol. 9:725-735(1990).
[3]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=97191545; PubMed=9039503; DOI=10.1093/dnares/3.5.331;
RA Sasaki H., Shimozaki K., Zubair M., Aoki N., Hatano N., Moore T., Fell R., Constancia M., Reik W., Rotwein P.;
RT "Nucleotide sequence of a 28-kb mouse genomic region comprising the imprinted Igf2 gene."
RL DNA Res. 3:331-335(1996).
[4]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RX STRAIN=C57BL/6J; TISSUE=Embryo;
RX MEDLINE=42388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Hsieh F., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Umed T.B., Toshynski S., Carninci P., Prange C., Baha S.S., Loughran N.A., Peters G.J., Abramson R.D., Muliyil S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Huiyk S.W., Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Hulton E., Ketterman M., Madan A., Rodriguez S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Rodgerfield Y.S.N., Krzywinski M.I., Skalska U., Smalins D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.M., Maitra M.A.,
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.",
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [5]
 RP NUCLEOTIDE SEQUENCE OF 1-52.
 RX MEDLINE=89160812; PubMed=2537977;
 RA Tollfesen S.E., Sadow J.L., Rotwein P.,
 RT "Coordinate expression of insulin-like growth factor II and its
 RL receptor during muscle differentiation.",
 RL Proc. Natl. Acad. Sci. U.S.A. 86:1543-1547(1989).
 RN [6]
 RP NUCLEOTIDE SEQUENCE OF 1-52 AND 103-180.
 RX STRAIN=BALB/C; TISSUE=Spleen;
 MEDLINE=9408965; PubMed=8265819; DOI=10.1016/0167-0115(93)90337-8;
 RA Holthuizen P.E., Cleutjens C.B., Veenstra G.J., van der Lee F.M.,
 RA Koonen-Reemst A.M., Sussenbach J.S.,
 RT "Differential expression of the human, mouse and rat IGF-II genes.",
 RL Regul. Pept. 48:77-89(1993).
 CC -1- FUNCTION: The insulin-like growth factors possess growth-promoting
 CC activity. In vitro, they are potent mitogens for cultured cells.
 CC IGF-II is influenced by placental lactogen and may play a role in
 CC fetal development.
 CC -1- SUBCELLULAR LOCATION: Secreted protein.
 CC -1- DEVELOPMENTAL STAGE: Low levels of expression during myoblast
 CC proliferation. Levels rise rapidly during myoblast differentiation
 CC and then decrease.
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC -----
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 CC Distributed under the Creative Commons Attribution-NonDerivs license
 CC -----
 DR EMBL: M14951; AAA37683.1; -; mRNA.
 DR EMBL: M36332; AAA37926.1; -; Genomic DNA.
 DR EMBL: M36331; AAA37926.1; JOINED; Genomic DNA.
 DR EMBL: U71085; AAC53516.1; -; Genomic DNA.
 DR EMBL: BC053489; AAH53489.1; -; mRNA.
 DR EMBL: M24633; AAA37923.1; -; Genomic DNA.
 DR EMBL: X71921; CAA50737.1; -; Genomic DNA.
 DR EMBL: X71922; CAA50738.1; -; Genomic DNA.
 DR EMBL: A24913; A24913.
 DR HSSP: P01344; 1IGL.
 DR HSSP: P09535; 25-91.
 DR SWR: P09535; 25-91.
 DR Ensembl: ENSMUSG0000048583; Mus musculus.
 DR MGI: MGI.96434; Igf2.
 DR GO: GO:0005615; C:extracellular space; TAS.
 DR GO: GO:0005159; F:insulin-like growth factor receptor binding; IPT.
 DR GO: GO:000515; F:protein binding; IPT.
 DR GO: GO:0009887; P:organogenesis; IMP.
 DR InterPro: IPR004824; Bombyxin.
 DR InterPro: IPR004825; Ins/IGF/relax.
 DR Pfam: PF00094; Insulin.1.
 DR PRINTS: PR00277; INSULINB.
 DR ProDom: PD001046; Bombyxin.1.
 DR SMART: SM00078; IIGF.1.
 DR PROSITE: PS00262; INSULIN.1.
 DR Growth factor; Mitogen; Signal.
 KM STGNAL 1 24
 FT CHAIN 25 91 Insulin-like growth factor II.
 FT PROPEP 92 180 /FTid=PRO_0000015720.
 FT REGION 25 52 E peptide.
 FT REGION 53 64 /FTid=PRO_0000015721.
 FT REGION 65 85 B.
 FT REGION 86 91 A.
 FT DISULFID 33 71 D.
 FT DISULFID 45 84 By similarity.
 FT DISULFID 70 75 By similarity.
 FT DISULFID 70 75 By similarity.
 SQ SEQUENCE 180 AA; 20030 MW; 01730F8856E6D7B CRC64;

Query Match 100.0%; Score 185; DB 1; Length 180;
 Best Local Similarity 100.0%; Pred. No. 2.8e-18;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 DVSTSOAVLPDDFPFRYPVGKFFQYDTWRQSAGRL 34
 DB 93 DVSTSOAVLPDDFPFRYPVGKFFQYDTWRQSAGRL 126
 RESULT 2
 Q2IDG5 MUSSP PRELIMINARY; PRT; 180 AA.
 ID Q2IDG5 MUSSP
 AC Q2IDG5;
 DT 07-MAR-2006, integrated into UniProtKB/TrEMBL.
 DT 07-MAR-2006, sequence version 1.
 DE Insulin-like growth factor 2.
 GN Name=IGF2; ORFNames=XX-CH35.17P24.2-002;
 OS Mus spretus (Western wild mouse).
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Muridae; Murinae; Mus.
 OX NCBI_TaxId=10096;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Matthews L.,
 RL Submitted (FEB-2006) to the EMBL/GenBank/DBJ databases.
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 CC -----
 DR EMBL: C1027994; CAJ76273.1; -; Genomic DNA.
 DR SQ SEQUENCE 180 AA; 19889 MW; SCA4059326E6B0 CRC64;
 QY 1 DVSTSOAVLPDDFPFRYPVGKFFQYDTWRQSAGRL 34
 DB 93 DVSTSOAVLPDDFPFRYPVGKFFQYDTWRQSAGRL 126
 RESULT 3
 Q2IDG7 MUSSP PRELIMINARY; PRT; 191 AA.
 ID Q2IDG7 MUSSP
 AC Q2IDG7;
 DT 07-MAR-2006, integrated into UniProtKB/TrEMBL.
 DT 07-MAR-2006, sequence version 1.
 DE Insulin-like growth factor 2.
 GN Name=IGF2; ORFNames=XX-CH35.17P24.2-001;
 OS Mus spretus (Western wild mouse).
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Muridae; Murinae; Mus.
 OX NCBI_TaxId=10096;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Matthews L.,
 RL Submitted (FEB-2006) to the EMBL/GenBank/DBJ databases.
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 CC -----
 DR EMBL: C1027994; CAJ76271.1; -; Genomic DNA.
 DR SQ SEQUENCE 191 AA; 20920 MW; B121712E496A78BA CRC64;
 QY 1 DVSTSOAVLPDDFPFRYPVGKFFQYDTWRQSAGRL 34
 DB 93 DVSTSOAVLPDDFPFRYPVGKFFQYDTWRQSAGRL 126
 Query Match 100.0%; Score 185; DB 2; Length 191;
 Best Local Similarity 100.0%; Pred. No. 3e-18;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY      1 DVSTSQAVLPDDPPRYPVGKFFQYDWTWROSAGRL 34
      |||||
Db      104 DVSTSQAVLPDDPPRYPVGKFFQYDWTWROSAGRL 137

RESULT 4
063265 RAT PRELIMINARY; PRT; 154 AA.
ID 063265 RAT
AC 063265_
DT 01-NOV-1996, integrated into UniProtKB/TrEMBL.
DT 01-NOV-1996, sequence version 1.
DT 07-FEB-2006, entry version 29.
DE Rat insulin-like growth factor II (fragment).
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Murinae; Rattus.
OX NCBI_TaxId=10116;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Rechter M.M., Bruni C.B., Whitfield H.J., Yang Y.W.-H., Frunzio R.,
RA Graham D.E., Colligan J.E., Terrell J.E., Acquaviva A.M., Nisley S.P.,
RT "Characterization of the biosynthetic precursor for rat insulin-like
RT growth factor II by biosynthetic labeling, radiosequencing, and
RT nucleotide sequence analysis of a cDNA clone.";
RL Cancer Cells 3:131-138(1985).
CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -1- SIMILARITY: Belongs to the insulin family.
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DR EMBL, M38688; AAA41433.1; -; mRNA.
DR HSSP; P01344; 1IGL.
DR SMR; Q63265; 1-65.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007582; P:physiological process; IEA.
DR InterPro; IPR004825; Ins/IGF/relax.
DR InterPro; IPR003234; Insulin-like.
DR Pfam; PF00049; Insulin; 1.
DR PRINTS; PR00277; INSULINB.
DR ProDom; PD015667; Molusc_ins; 1.
DR SMART; SM00078; IIGF; 1.
DR PROSITE; PS00262; INSULIN; 1.
DR NON_TER 1
SQ SEQUENCE 154 AA; 17376 MW; 2AD45125E68B15E CRC64;

Query Match 95.7%; Score 177; DB 2; Length 154;
Best Local Similarity 94.1%; Pred. No. 3.3e-17;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDPPRYPVGKFFQYDWTWROSAGRL 34
      |||||
Db      67 DVSTSQAVLPDDPPRYPVGKFFQYDWTWROSAGRL 100

RESULT 5
IGF2 RAT STANDARD; PRT; 180 AA.
ID IGF2 RAT
AC P01346;
DT 21-UTL-1986, integrated into UniProtKB/Swiss-Prot.
DT 20-MAR-1987, sequence version 1.
DT 07-FEB-2006, entry version 59.
DE Insulin-like growth factor II precursor (IGF-II) (multiplication-
DE stimulating polypeptide) (Multiplication-stimulating activity) (MSA).
GN Name:IGF2; Synonym:IGF-2;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Murinae; Rattus.
OX NCBI_TaxId=10116;
RN [1]

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RP NUCLEOTIDE SEQUENCE.
RC STRAIN=BRL-3A;
RX MEDLINE=84285593; PubMed=6382022;
RA Dull T.J., Gray A., Hayflick J.S., Ullrich A.;
RT "Insulin-like growth factor II precursor gene organization in relation
RT to insulin gene family.";
RL Nature 310:777-781(1984).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Buffalo;
RX MEDLINE=85215534; PubMed=3889836;
RA Soares M.B., Ishii D.N., Efstratiadis A.;
RT "Developmental and tissue-specific expression of a family of
RT transcripts related to rat insulin-like growth factor II mRNA.";
RL Nucleic Acids Res. 13:1119-1134(1985).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=87226166; PubMed=2438416;
RA Soares M.B., Turken A., Ishii D.N., Mills L., Episkopou V., Cotter S.,
RA Zeitlin S., Efstratiadis A.;
RT "Rat insulin-like growth factor II gene. A single gene with two
RT promoters expressing a multitranscript family.";
RL J. Mol. Biol. 192:737-752(1986).
RN [4]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=87057436; PubMed=3023383;
RA Frunzio R., Chariotot L., Brown A.L., Graham D.E., Rechter M.M.,
RA Bruni C.B.;
RT "Structure and expression of the rat insulin-like growth factor II
RT (IGF-II) gene. rIGF-II RNAs are transcribed from two promoters.";
RL J. Biol. Chem. 261:17338-17349(1986).
RN [5]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=89000793; PubMed=3167060; DOI=10.1016/0167-4781(88)90138-8;
RA Ueno T., Takahashi K., Matsuguchi T., Endo H., Yamamoto M.;
RT "Transcriptional deviation of the rat insulin-like growth factor II
RT gene initiated at three alternative leader-exons between neonatal
RT tissues and ascites hepatomas.";
RL Biochim. Biophys. Acta 950:411-419(1988).
RN [6]
RP NUCLEOTIDE SEQUENCE OF 62-180.
RX MEDLINE=85061532; PubMed=6390212;
RA Whitfield H.J., Bruni C.B., Frunzio R., Terrell J.E., Nisley S.P.,
RA Rechter M.M.;
RT "Isolation of a cDNA clone encoding rat insulin-like growth factor-II
RT precursor.";
RL Nature 312:277-280(1984).
RN [7]
RP NUCLEOTIDE SEQUENCE OF 103-180.
RX MEDLINE=89127259; PubMed=3221878;
RA Chariotot L., Brown A.L., Frunzio R., Clemmons D.R., Rechter M.M.,
RA Bruni C.B.;
RT "Structure of the rat insulin-like growth factor II transcriptional
RT unit: heterogeneous transcripts are generated from two promoters by
RT use of multiple polyadenylation sites and differential ribonucleic
RT acid splicing.";
RL Mol. Endocrinol. 2:1115-1126(1988).
RN [8]
RP PROTEIN SEQUENCE OF 25-91.
RX MEDLINE=81215670; PubMed=7016879;
RA Marguier H., Todaro G.J., Henderson L.E., Oroszian S.;
RT "Purification and primary structure of a polypeptide with
RT multiplication-stimulating activity from rat liver cell cultures.
RT Homology with human insulin-like growth factor II.";
RL J. Biol. Chem. 256:6859-6865(1981).
CC -1- FUNCTION: The insulin-like growth factors possess growth-promoting
CC activity. In vitro, they are potent mitogens for cultured cells
CC IGF-II is influenced by placental lactogen and may play a role in
CC fetal development.
CC -1- SUBCELLULAR LOCATION: Secreted protein.
CC -1- SIMILARITY: Belongs to the insulin family.
CC Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms

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RT determination of a cDNA nucleotide sequence and developmental
RT regulation of its expression."
RL Gen. Comp. Endocrinol. 90:243-250(1993).
CC -I- FUNCTION: The insulin-like growth factors possess growth-promoting
CC activity. In vitro, they are potent mitogens for cultured cells.
CC IGF-II is influenced by placental lactogen and may play a role in
CC fetal development.
CC -I- SUBCELLULAR LOCATION: Secreted protein.
CC -I- SIMILARITY: Belongs to the insulin family.
CC -----
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CC -----
DR EMBL: S63459; AAB27392.2; -; mRNA.
DR HSSP: P01344; 11GL.
DR SMR: P41694; 25-92.
DR InterPro: IPR004825; Ins/IGF/relax.
DR Pfam: PF00049; Insulin; 1.
DR PRINTS: PR00277; INSULINB.
DR SMART: SM00078; IIGF; 1.
DR PROSITE: PS00262; INSULIN; 1.
KM Growth factor; Mitogen; Signal.
FT SIGNAL 1 24 By similarity.
FT CHAIN 25 92 Insulin-like growth factor II.
FT PROPE 93 >129 E peptide (By similarity).
FT REGION 25 52 /FTid=PRO_0000015722.
FT REGION 53 65 /FTid=PRO_0000015723.
FT REGION 66 86 A.
FT REGION 87 92 D.
FT DISULFID 33 72 By similarity.
FT DISULFID 45 85 By similarity.
FT DISULFID 71 76 By similarity.
FT NON_TER 129 129
SQ SEQUENCE 129 AA; 14437 MW; FD06661DAFB473D0 CRC64;

Query Match 83.2%; Score 154; DB 1; Length 129;
Best Local Similarity 82.4%; Pred. No. 5.8e-14;
Matches 28; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVKGFQYDFTWRQSGRL 34
ID IGF2_HUMAN STANDARD; PRT; 180 AA.
AC P01344; P76449; Q14299; Q9UC68; Q9UC69.
DT 21-UTL-1986; Integrated into UniProtKB/Swiss-Prot.
DT 21-UTL-1986; sequence version 1.
DE 07-FEB-2006; entry version 81.
DE Insulin-like growth factor II precursor (IGF-II) (Somatomedin A)
DE [Contains: Insulin-like growth factor II Ala-25 Del].
GN Name:IGF2; ORFNames:PP1446;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RX MEDLINE=84295593; PubMed=6382022;
RA Dull T.J., Gray A., Hayflick J.S., Ullrich A.;
RT "Insulin-like growth factor II precursor gene organization in relation
RT to insulin gene family."
RL Nature 310:777-781(1984).
RN [2]
RP NUCLEOTIDE SEQUENCE (WRNA) (ISOFORM 1).
RX MEDLINE=84295592; PubMed=6382021;
RA Bell G.I., Merryweather J.P., Sanchez-Pescador R., Stempien M.M.,
RA Priestley L., Scott J., Rall L.B.;

RT "Sequence of a cDNA clone encoding human preproinsulin-like growth
RT factor II.";
RL Nature 310:775-777(1984).
RN [3]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RX MEDLINE=88158110; PubMed=2450353;
RA Shen S.-J., Daimon M., Wang C.-Y., Jansen M., Ilan J.;
RT "Isolation of an insulin-like growth factor II cDNA with a unique 5'
RT untranslated region from human placenta."
RT Proc. Natl. Acad. Sci. U.S.A. 85:1947-1951(1988).
RL [4]
RP NUCLEOTIDE SEQUENCE (ISOFORM 1).
RX MEDLINE=86108862; PubMed=3002851; DOI=10.1016/0014-5793(86)80156-9;
RA de Pagter-Holthuisen P., van Schaik F.M.A., Verdult G.M.,
RA van Ommen G.J.B., Bouma B.N., Jansen M., Sussenbach J.S.;
RT "Organization of the human genes for insulin-like growth factors I and
RT II.";
RL FEBS Lett. 195:179-184(1986).
RN [5]
RP NUCLEOTIDE SEQUENCE (WRNA) (ISOFORM 1).
RX MEDLINE=87317645; PubMed=3476948;
RA Iriminger J.C., Rosen K.M., Humbel R.E., Villa-Komaroff L.;
RT "Issue-specific expression of insulin-like growth factor II mRNAs
RT with distinct 5' untranslated regions."
RL Proc. Natl. Acad. Sci. U.S.A. 84:6330-6334(1987).
RN [6]
RP NUCLEOTIDE SEQUENCE (WRNA) (ISOFORM 1).
RX MEDLINE=88065102; PubMed=3683205;
RA Rall L.B., Scott J., Bell G.I.;
RT "Human insulin-like growth factor I and II messenger RNA: isolation of
RT complementary DNA and analysis of expression."
RL Methods Enzymol. 146:239-248(1987).
RN [7]
RP NUCLEOTIDE SEQUENCE (WRNA) (ISOFORMS 1 AND 2).
RX MEDLINE=85102019; PubMed=3881277; DOI=10.1016/0014-5793(85)80527-5;
RA Jansen M., van Schaik F.M.A., van Tol H., van den Brande J.L.,
RA Sussenbach J.S.;
RT "Nucleotide sequences of cDNAs encoding precursors of human insulin-
RT like growth factor II (IGF-II) and an IGF-II variant."
RL FEBS Lett. 179:243-246(1985).
RN [8]
RP NUCLEOTIDE SEQUENCE (WRNA) (ISOFORM 1).
RX MEDLINE=95247546; PubMed=7730145;
RA Hagiwara K., Kobayashi T., Tobita M., Kikyo N., Yazaki Y., Okabe T.;
RT "Isolation of a cDNA for a growth factor of vascular endothelial cells
RT from human lung cancer cells: its identity with insulin-like growth
RT factor II.";
RL Jpn. J. Cancer Res. 86:202-207(1995).
RN [9]
RP NUCLEOTIDE SEQUENCE (LARGE SCALE MRNA) (ISOFORM 1).
RX PubMed=15498874; DOI=10.1073/pnas.0404089101;
RA Wan D., Gong Y., Qin W., Zhang P., Li J., Wei L., Zhou X., Li H.,
RA Qiu X., Zhong F., He L., Yu J., Yao G., Jiang H., Qian L., Yu Y.,
RA Shu H., Chen X., Xu H., Guo M., Pan Z., Chen Y., Ge C., Yang S.,
CA Gu J.;
RT "Large-scale cDNA transfection screening for genes related to cancer
RT development and progression."
RL Proc. Natl. Acad. Sci. U.S.A. 101:15724-15729(2004).
RN [10]
RP NUCLEOTIDE SEQUENCE (LARGE SCALE MRNA) (ISOFORM 1).
RX Kalline N., Chen X., Rolfs A., Halleck A., Hines L., Eisenstein S.,
RA Koundinya M., Raphael J., Moreira D., Kelley T., Labaer J., Lin Y.,
RA Enehan M., Farmer A.;
RT "Cloning of human full-length cDNAs in BD Creator(TM) system donor
RT vector."
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
RN [11]
RP NUCLEOTIDE SEQUENCE (GENOMIC DNA).
RX Rieder M.J., Armet T.Z., Carrington D.P., Ozuna M., Kuldanek S.A.,
RA Rajkumar N., Toch E.J., Yi Q., Nickerson D.A.;
RT "SeattleSNPs: NHLBI HUG6682 program for genomic applications, UW-
RT FHCRC, Seattle, WA (URL: <http://pga.gs.washington.edu>).";
RT Submitted (MAY-2002) to the EMBL/GenBank/DBJ databases.

[12] NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
RP TISSUE=Muscle;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strusberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shennan C.M., Schler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diachenko L., Marusha K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldi M.F., Cassavat T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Mullahy S.J.,
RA Raha S.S., Loggellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., Mcwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahy J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butlerfield Y.S.N., Krzywinski M.I., Skalska U., Smalins D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.,
RT "Generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [13]
RP NUCLEOTIDE SEQUENCE OF 103-180.
RX MEDLINE=89000779; PubMed=3167054; DOI=10.1016/0167-4781(88)90124-8;
RA de Pagter-Holthuisen P., van der Kammen R.A., Jansen M.,
RA van Schaik F.M.A., Sussenbach J.S.;
RT "Differential expression of the human insulin-like growth factor II
gene. Characterization of the IGF-II mRNA and an mRNA encoding a
putative IGF-II-associated protein.";
RL Biochim. Biophys. Acta 950:282-295(1988).
RN [14]
RP NUCLEOTIDE SEQUENCE OF 1-161 (ISOFORM 2).
RX MEDLINE=8800517; PubMed=3653397; DOI=10.1016/0014-5793(87)80216-8;
RA le Bouc Y., Noguez P., Sondermeijer P., Dreyer D., Girard F.,
RA Binoux M.;
RT "A new 5'-non-coding region for human placental insulin-like growth
factor II mRNA expression.";
RL FEBS Lett. 222:181-185(1987).
RN [15]
RP NUCLEOTIDE SEQUENCE OF 1-52.
RC TISSUE=Liver;
RX MEDLINE=88003966; PubMed=3652904;
RA Gray A., Tam A.W., Dull T.J., Hayflick J.S., Pintar J., Cavenee W.K.,
RA Koufos A., Ullrich A.;
RT "Tissue-specific and developmentally regulated transcription of the
insulin-like growth factor 2 gene.";
RL DNA 6:283-295(1987).
RN [16]
RP PROTEIN SEQUENCE OF 25-91.
RX MEDLINE=78191259; PubMed=658418; DOI=10.1016/0014-5793(78)80237-3;
RA Binderkeche E., Humbel R.E.;
RT "Primary structure of human insulin-like growth factor II.";
RL FEBS Lett. 89:283-286(1978).
RN [17]
RP PARTIAL PROTEIN SEQUENCE, AND DISULFIDE BONDS.
RX MEDLINE=89255428; PubMed=2722836;
RA Smith M.C., Cook J.A., Furman T.C., Oocelowitz J.L.;
RT "Structure and activity dependence of recombinant human insulin-like
growth factor II on disulfide bond pairing.";
RL J. Biol. Chem. 264:9314-9321(1989).
RN [18]
RP PROTEIN SEQUENCE OF 25-68.
RX MEDLINE=9530205; PubMed=7633596; DOI=10.1016/0378-4347(94)00576-Q;
RA de Genninck F., Willeput J., Corvol M.;
RT "Purification and characterization of insulin-like growth factor II
(IGF II) and an IGF II variant from human placenta.";
RL J. Chromatogr. B 666:203-214(1995).
RN [19]
RP MASS SPECTROMETRY, AND PROCESSING.
RX MEDLINE=22474139; PubMed=12586351; DOI=10.1016/S0014-5793(03)00042-5;

RA Nedelkov D., Nelson R.W., Kiernan U.A., Niederkofer E.E., Tubbs K.A.;
RT "Detection of bound and free IGF-1 and IGF-2 in human plasma via
biomolecular interaction analysis mass spectrometry.";
RL FEBS Lett. 536:130-134(2003).
RN [20]
RP MASS SPECTROMETRY, AND PROCESSING.
RX PubMed=15359740; DOI=10.1021/pr049338j;
RA Nelson R.W., Nedelkov D., Tubbs K.A., Kiernan U.A.;
RT "Quantitative mass spectrometric immunoassay of insulin like growth
factor I.";
RL J. Proteome Res. 3:851-855(2004).
RN [21]
RP CARBOHYDRATE-LINKAGE SITE THR-99.
RX MEDLINE=92235026; PubMed=1559071;
RA Hudgins W.R., Hampton B., Burgess W.H., Perdue J.F.;
RT "The identification of O-glycosylated precursors of insulin-like
growth factor II.";
RL J. Biol. Chem. 267:8153-8160(1992).
RN [22]
RP 3D-STRUCTURE MODELING.
RX MEDLINE=83210259; PubMed=6189745;
RA Blundell T.L., Beddard S., Humbel R.E.;
RT "Tertiary structures, receptor binding, and antigenicity of
insulin-like growth factors.";
RL Fed. Proc. 42:2592-2597(1983).
RN [23]
RP STRUCTURE BY NMR.
RX MEDLINE=95080243; PubMed=7527339;
RA Terasawa H., Kohda D., Hatanaka H., Nagata K., Higashihashi N.,
Query Match 81.1%; Score 150; DB 1; Length 180;
Best Local Similarity 79.4%; Pred. No. 3,2e-13;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;
Qy 1 DVSTSQAVLPDDFPYVGFQYDTWRQAGRL 34
Db 93 DVSTPPTVLPDNPFRYPVGFQYDTWRQSTQRL 126
RESULT 9
IGF2_PIG STANDARD; PRT; 181 AA.
AC P3685;
DT 01-NOV-1991, integrated into UniProtKB/Swiss-Prot.
DT 01-FEB-1996, sequence version 2.
DT 07-FEB-2006, entry version 48.
DE Insulin-like growth factor II precursor (IGF-II).
GN Name=IGF2;
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC Sus.
OX NCBI_TaxID=9823;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=91057136; PubMed=2243790;
RA Catchpole I.R., Engstroem W.;
RT "Nucleotide sequence of a porcine insulin-like growth factor II
cDNA.";
RL Nucleic Acids Res. 18:6430-6430(1990).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Large white;
RX MEDLINE=2215358; PubMed=12140686; DOI=10.1007/s00335-001-3059-X;
RA Anarger V., Nguyen M., Van Laere A.-S., Braunschweig M., Nezer C.,
RA Georges M., Anderson L.;
RT "Comparative sequence analysis of the INS-IGF2-H19 gene cluster in
pigs.";
RL Mamm. Genome 13:388-398(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=European wild boar, Hampshire, Japanese wild boar, Landrace,
Large white, Meishan, and Pietrain;

RX MEDLINE=22935770; PubMed=14574411; DOI=10.1038/nature02064;
RA Van laere A.-S., Nguyen M., Braunschweig M., Nezer C., Collette C.,
RA Moreau L., Archibald A.L., Haley C., Buys N., Tally M., Andersson G.,
RT Georges M., Andersson L.,
RT "A regulatory mutation in IGF2 causes a major QTL effect on muscle
RT growth in the pig."
RL Nature 425:832-836(2003).
[4]
RP PROTEIN SEQUENCE OF 25-91.
RA MEDLINE=20039035; PubMed=2809477;
RA Francis G.L., Owens P.C., McNeill K.A., Wallace J.C., Ballard F.J.;
RT "Purification, amino acid sequences and assay cross-reactivities of
RT porcine insulin-like growth factor-I and -II."
RL J. Endocrinol. 122:681-687(1989).
CC -I- FUNCTION: The insulin-like growth factors possess growth-promoting
CC activity. In vitro, they are potent mitogens for cultured cells.
CC IGF-II is influenced by placental lactogen and may play a role in
CC fetal development.
CC -I- SUBCELLULAR LOCATION: Secreted protein.
CC -I- SIMILARITY: Belongs to the insulin family.
CC -----
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CC Distributed under the Creative Commons Attribution-NonDerivs License
CC -----
DR EMBL: X56094; CAI39574.1; -; mRNA.
DR EMBL: AY044828; AAL69551.1; -; Genomic DNA.
DR EMBL: AY242098; AAQ00953.1; -; Genomic DNA.
DR EMBL: AY242099; AAQ00955.1; -; Genomic DNA.
DR EMBL: AY242100; AAQ00958.1; -; Genomic DNA.
DR EMBL: AY242101; AAQ00961.1; -; Genomic DNA.
DR EMBL: AY242102; AAQ00964.1; -; Genomic DNA.
DR EMBL: AY242103; AAQ00967.1; -; Genomic DNA.
DR EMBL: AY242104; AAQ00970.1; -; Genomic DNA.
DR EMBL: AY242105; AAQ00973.1; -; Genomic DNA.
DR EMBL: AY242106; AAQ00976.1; -; Genomic DNA.
DR EMBL: AY242107; AAQ00979.1; -; Genomic DNA.
DR EMBL: AY242108; AAQ00982.1; -; Genomic DNA.
DR EMBL: AY242109; AAQ00984.1; -; Genomic DNA.
DR EMBL: AY242110; AAQ00986.1; -; Genomic DNA.
DR EMBL: AY242111; AAQ00988.1; -; Genomic DNA.
DR EMBL: AY242112; AAQ00991.1; -; Genomic DNA.
DR HSSP: P01344; 1IGL.
DR SMR: P23695; 25-91.
DR InterPro: IPR004825; Ins/IGF/relax.
DR InterPro: IPR003234; Insulin-like.
DR Pfam: PF00049; Insulin_1.
DR PRINTS: PR00277; INSULIN_1.
DR ProDom: PD015667; Mollusc_ins; 1.
DR SMART: SM00078; 1IGF; 1.
DR PROSITE: PS00262; INSULIN; 1.
KW Direct protein sequencing; Growth factor; Mitogen; Signal.
FT FT SIGNAL 1 24 By similarity.
FT CHAIN 25 91 Insulin-like growth factor II.
FT PROPEP 92 181 E peptide.
FT REGION 25 52 /FTid=PRO_0000015727.
FT REGION 53 64 B.
FT REGION 65 85 C.
FT REGION 86 91 A.
FT DISUPRID 33 71 D.
FT DISUPRID 45 84 By similarity.
FT DISUPRID 70 75 By similarity.
SQ SEQUENCE 181 AA; 20313 MW; 1816B935299B44E1 CRC64;
Query Match 81.1%; Score 150; DB 1; Length 181;
Best Local Similarity 79.4%; Pred. No. 3, 2e-11;
Matches 27; Conservative 3; Mismatches 4; Indels 0; Gaps 0;

RESULT 10
Q8WJ15.PIG PRELIMINARY; PRT; 123 AA.
ID Q8WJ15.PIG
AC Q8WJ15;
DT 01-OCT-2002, integrated into UniProtKB/TrEMBL.
DT 01-OCT-2002, sequence version 1.
DT 07-FEB-2006, entry version 15.
DE Insulin-like growth factor 2 preproprotein (Fragment).
GN Name=IGF2;
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Cranialata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suidae;
OC Sus.
CC NCBI_TaxID=9623;
CC [1]
CC NUCLEOTIDE SEQUENCE.
RP MEDLINE=22135958; PubMed=12140686; DOI=10.1007/s00335-001-3059-x;
RA Amarger V., Nguyen M., Van Laere A.-S., Braunschweig M., Nezer C.,
RA Georges M., Andersson L.,
RT "Comparative sequence analysis of the INS-IGF2-H19 gene cluster in
RT pigs."
RL Mamm. Genome 13:388-398(2002).
CC -I- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -I- SIMILARITY: Belongs to the insulin family.
CC -----
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CC -----
DR EMBL: AF466299; AAMB3400.1; -; mRNA.
DR HSSP: P01344; 1IGL.
DR SMR: Q8WJ15; 25-91.
DR GO: GO:0005576; C:extracellular region; IEA.
DR GO: GO:0005179; F:hormone activity; IEA.
DR GO: GO:0018445; F:prohormone activity; IEA.
DR GO: GO:0007582; P:physiological process; IEA.
DR InterPro: IPR004824; Bombyxin.
DR InterPro: IPR004825; Ins/IGF/relax.
DR InterPro: IPR003234; Insulin-like.
DR Pfam: PF00049; Insulin_1.
DR PRINTS: PR00276; INSULIN_1.
DR PRINTS: PR00277; INSULIN_1.
DR ProDom: PD001048; Bombyxin; 1.
DR ProDom: PD015667; Mollusc_ins; 1.
DR SMART: SM00078; 1IGF; 1.
DR PROSITE: PS00262; INSULIN; 1.
FT NON TER 123 123
SQ SEQUENCE 123 AA; 13876 MW; A0783AF5D9B89338 CRC64;
Query Match 77.3%; Score 143; DB 2; Length 123;
Best Local Similarity 80.6%; Pred. No. 2, 1e-12;
Matches 25; Conservative 3; Mismatches 3; Indels 0; Gaps 0;
OY 1 DVSTSQAVLPDDPFRYPVVGKFFOYDTWRQSA 31
DB 93 DVSTPPTVLPDNPFRYPVVGKFFRDTWKQSA 123
RESULT 11
IGF2 SHEEP
ID IGF2 SHEEP STANDARD; PRT; 179 AA.
AC P10764;
DT 01-JUL-1989, integrated into UniProtKB/Swiss-Prot.
DT 01-OCT-1989, sequence version 2.
DT 07-FEB-2006, entry version 51.
DE Insulin-like growth factor II precursor (IGF-II).
GN Name=IGF2;
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Cranialata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Caprinae; Ovis.
CC NCBI_TaxID=9940;
CC [1]

RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Liver;
RX MEDLINE=89345107; PubMed=2762134;
RA O'Mahoney J.V., Adams T.E.;
RT "Nucleotide sequence of an ovine insulin-like growth factor-II cDNA.";
RN Nucleic Acids Res. 17:5392-5392(1989).
RC TISSUE=Liver;
RX MEDLINE=90356421; PubMed=2388846;
RA Brown W.M., Dziegielewska K.M., Foreman R.C., Saunders N.R.;
RT "The nucleotide and deduced amino acid sequences of insulin-like
growth factor II cDNAs from adult bovine and fetal sheep liver.";
RN Nucleic Acids Res. 18:4614-4614(1990).
[3]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Cocworth; TISSUE=Liver;
RX MEDLINE=93250051; PubMed=8485157; DOI=10.1016/0167-4781(93)90246-A;
RA Demmer J., Hill D.F., Petersen G.B.;
RT "Characterization of two sheep insulin-like growth factor II cDNAs
with different 5'-untranslated regions.";
RN Biochim. Biophys. Acta 1173:79-80(1993).
[4]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Liver;
RA Ohlsen S.M., Wong E.A.;
RN Submitted (SEP-1990) to the EMBL/GenBank/DBJ databases.
[5]
RP PROTEIN SEQUENCE OF 25-91.
RX MEDLINE=89136887; PubMed=2537174;
RA Francis G.L., McNeil K.A., Wallace J.C., Ballard F.J., Owens P.C.;
RT "Sheep insulin-like growth factors I and II: sequences, activities and
assays.";
RN Endocrinology 124:1173-1183(1989).
[6]
RP PROTEIN SEQUENCE OF 25-58.
RX MEDLINE=8933215; PubMed=2752053; DOI=10.1016/0167-4838(89)90131-3;
RA Hey A.W., Browne C.A., Simpson R.J., Thorburn G.D.;
RT "Simultaneous isolation of insulin-like growth factors I and II from
adult sheep serum.";
RN Biochim. Biophys. Acta 997:27-35(1989).
CC -I- FUNCTION: The insulin-like growth factors possess growth-promoting
activity. In vitro, they are potent mitogens for cultured cells.
CC IGF-II is influenced by placental lactogen and may play a role in
fetal development.
CC -I- SUBCELLULAR LOCATION: Secreted protein.
CC -I- SIMILARITY: Belongs to the insulin family.
CC -----
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CC -----
DR EMBL, U00668; AAB60626.1; -; Genomic DNA.
DR EMBL, U00666; AAB60626.1; JOINED; Genomic DNA.
DR EMBL, U00667; AAB60626.1; JOINED; Genomic DNA.
DR EMBL, X15248; CA333324.1; -; mRNA.
DR EMBL, X53554; CA33762.1; -; mRNA.
DR EMBL, M89788; AAA31548.1; -; mRNA.
DR EMBL, M89789; AAA31549.1; -; mRNA.
DR EMBL, X55638; CA339163.1; -; mRNA.
DR PIR, S04858; S04858.
DR HSSP, P01344; 11GL.
DR SMR, P10764; 25-91.
DR InterPro, IPR004825; Ins/IGF/relax.
DR Pfam, PF00049; Insulin; 1.
DR PRINTS, PR00277; INSULIN.
DR SMART, SM00078; IIGF; 1.
DR PROSITE, PS00262; INSULIN, 1.
KM Direct protein sequencing; Growth factor; Mitogen; Signal.
FT SIGNAL 1 24
FT CHAIN 25 91 Insulin-like growth factor II.
FT /FTId=PRO_0000015731.
FT E peptide-
FT PROPEP 92 179
FT /FTId=PRO_0000015732.

FT REGION 25 52 B.
FT 53 64 C.
FT REGION 65 85 A.
FT REGION 86 91 D.
FT DISULFID 33 71 By similarity.
FT DISULFID 45 84 By similarity.
FT DISULFID 70 75 By similarity.
FT CONFLICT 46 47 GD -> DG (in Ref. 5).
SQ SEQUENCE 179 AA; 19616 MW; 7B369A57F2E3478 CRC64;
Query Match 71.4%; Score 132; DB 1; Length 179;
Best Local Similarity 73.5%; Pred. No. 1.3e-10;
Matches 25; Conservative 1; Mismatches 8; Indels 0; Gaps 0;
QY 1 DVSTQAVLPDPFRYPVGKFFQYDTWROSAGRL 34
Db 93 DVASSTTVLPDDFTAYPVGKFFQSDTWKSTQRL 126
RESULT 12
Q53WT7 RAT PRELIMINARY; PRT; 78 AA.
AC Q53WT7;
DT 24-MAY-2005, integrated into UniProtKB/TrEMBL.
DT 24-MAY-2005, sequence version 1.
DT 07-FEB-2006, entry version 3.
DE Insulin-like growth factor II gene (Fragment).
GN Name=IGFII;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Murinae; Rattus.
OX NCBI_TaxId=10116;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Sprague-Dawley;
RX MEDLINE=90001243; PubMed=2477062; DOI=10.1016/0167-4781(89)90074-2;
RA Ueno T., Takahashi K., Matsuguchi T., Ikejiri K., Endo H.,
RA Yamamoto M.;
RT "Multiple polyadenylation sites in a large 3'-most exon of the rat
insulin-like growth factor II gene.";
RN Biochim. Biophys. Acta 1009:27-34(1989).
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CC -----
DR EMBL, X16703; CA34674.1; -; mRNA.
CC FT NON TER 1 1
SQ SEQUENCE 78 AA; 8983 MW; 7E827486A08EC31 CRC64;
Query Match 70.3%; Score 130; DB 2; Length 78;
Best Local Similarity 91.7%; Pred. No. 9.7e-11;
Matches 22; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
QY 11 DDFPRYPVGKFFQYDTWROSAGRL 34
Db 1 DDFPRYPVGKFFQYDTWROSAGRL 24
RESULT 13
O862E7 BOVIN PRELIMINARY; PRT; 104 AA.
AC O862E7;
DT 01-JUN-2003, integrated into UniProtKB/TrEMBL.
DT 01-JUN-2003, sequence version 1.
DT 07-FEB-2006, entry version 16.
DE Similar to insulin-like growth factor II (Fragment).
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Bovinae; Bos.
OX NCBI_TaxId=9913;
RN [1]

RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=22544902; PubMed=12658628; DOI=10.1002/mrd.10292;
 RA Ishiwa H., Katsuma S., Kizaki K., Patel O.V., Nakano H.,
 RA Takahashi T., Imai K., Hirasawa A., Shiojima S., Ikawa H., Suzuki Y.,
 RA Tsujimoto G., Izaike Y., Todoroki J., Hashizume K.;
 RT "Characterization of gene expression profiles in early bovine
 pregnancy using a custom cDNA microarray.";
 RL Mol. Reprod. Dev. 65:9-18(2003).
 CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC -----
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 CC -----
 DR EMBL; AB099052; BAC56542.1; -; mRNA.
 DR HSSP; P01344; 1IGL.
 DR GO; GO:0005576; C:extracellular region; IEA.
 DR GO; GO:0005179; F:hormone activity; IEA.
 DR GO; GO:0007582; P:physiological process; IEA.
 DR InterPro; IPR004825; Ins/IGF/relax.
 DR Pfam; PF00049; Insulin; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 FT NON TER 1
 FT NON TER 104 104
 SQ SEQUENCE 104 AA; 11708 MW; BBE8781F13EEB3C CRC64;
 Query Match 69.2%; Score 128; DB 2; Length 104;
 Best Local Similarity 70.6%; Pred. No. 2.6e-10;
 Matches 24; Conservative 1; Mismatches 9; Indels 0; Gaps 0;
 QY 1 DVSTSQAVLPDDPRYPVGKFFQYDTWRSAGRL 34
 DB 27 DVASSTVLPDDVTATPVGKFFQYDTWKOSTORL 60
 ID 0862G1_BOVIN PRELIMINARY; PRT; 141 AA.
 AC 0862G1;
 DT 01-JUN-2003, integrated into UniProtKB/TrEMBL.
 DT 01-JUN-2003, sequence version 1.
 DT 07-FEB-2006, entry version 15.
 DE Similar to insulin-like growth factor II (Fragment).
 OS Bos taurus (Bovine).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 OC Pecora; Bovidae; Bovinae; Bos.
 RN NCB1_TaxID=9913;
 RX NUCLEOTIDE SEQUENCE.
 RX MEDLINE=22544902; PubMed=12658628; DOI=10.1002/mrd.10292;
 RA Ishiwa H., Katsuma S., Kizaki K., Patel O.V., Nakano H.,
 RA Takahashi T., Imai K., Hirasawa A., Shiojima S., Ikawa H., Suzuki Y.,
 RA Tsujimoto G., Izaike Y., Todoroki J., Hashizume K.;
 RT "Characterization of gene expression profiles in early bovine
 pregnancy using a custom cDNA microarray.";
 RL Mol. Reprod. Dev. 65:9-18(2003).
 CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC -----
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 CC -----
 DR EMBL; AB099053; BAC56523.1; -; mRNA.
 DR HSSP; P01344; 1IGL.
 DR GO; GO:0005576; C:extracellular region; IEA.
 DR GO; GO:0005179; F:hormone activity; IEA.
 DR GO; GO:0007582; P:physiological process; IEA.
 DR InterPro; IPR004825; Ins/IGF/relax.
 DR Pfam; PF00049; Insulin; 1.
 DR SMART; SM00078; IIGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.

FT NON TER 1 1
 FT NON TER 141 141
 SQ SEQUENCE 141 AA; 15720 MW; 91EB0C5C18716B79 CRC64;
 Query Match 69.2%; Score 128; DB 2; Length 141;
 Best Local Similarity 70.6%; Pred. No. 3.7e-10;
 Matches 24; Conservative 1; Mismatches 9; Indels 0; Gaps 0;
 QY 1 DVSTSQAVLPDDPRYPVGKFFQYDTWRSAGRL 34
 DB 63 DVASSTVLPDDVTATPVGKFFQYDTWKOSTORL 96
 ID 09MYX4_BOSIN PRELIMINARY; PRT; 149 AA.
 AC 09MYX4;
 DT 01-OCT-2000, integrated into UniProtKB/TrEMBL.
 DT 01-OCT-2000, sequence version 1.
 DT 07-FEB-2006, entry version 22.
 DE Insulin-like growth factor 2 (Fragment).
 GN Name=IGF2;
 OS Bos indicus (Zebu).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 OC Pecora; Bovidae; Bovinae; Bos.
 RN NCB1_TaxID=9915;
 RX NUCLEOTIDE SEQUENCE.
 RA Pietrowski D., Dinkel M., Prelle K., Wolf E., Foerster M.;
 RL Submitted (JUN-2000) to the EMBL/GenBank/DBJ databases.
 CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
 CC -1- SIMILARITY: Belongs to the insulin family.
 CC -----
 CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>
 CC Distributed under the Creative Commons Attribution-NonDerivs License
 CC -----
 DR EMBL; AF283002; AA097244.1; -; mRNA.
 DR HSSP; P01344; 1IGL.
 DR SMR; 09MYX4; 1-61.
 DR GO; GO:0005576; C:extracellular region; IEA.
 DR GO; GO:0005179; F:hormone activity; IEA.
 DR GO; GO:0007582; P:physiological process; IEA.
 DR InterPro; IPR004825; Ins/IGF/relax.
 DR Pfam; PF00049; Insulin; 1.
 DR SMART; SM00078; IIGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 FT NON TER 1
 FT NON TER 1 1
 SQ SEQUENCE 149 AA; 16546 MW; 52B796BF17101FBE CRC64;
 Query Match 69.2%; Score 128; DB 2; Length 149;
 Best Local Similarity 70.6%; Pred. No. 4e-10;
 Matches 24; Conservative 1; Mismatches 9; Indels 0; Gaps 0;
 QY 1 DVSTSQAVLPDDPRYPVGKFFQYDTWRSAGRL 34
 DB 63 DVASSTVLPDDVTATPVGKFFQYDTWKOSTORL 96
 Search completed: May 21, 2006, 12:45:48
 Job time : 163.333 secs

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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:46:05 ; Search time 31 Seconds
(without alignments)
96.001 Million cell updates/sec

Title: US-10-632-366-3

Perfect score: 185

Sequence: 1 DVSTSOAVLPDDFPRYPVGKFFQYDTWROSGRL 34

Scoring table:

BLOSUM62

Searched: 650591 seqs, 87530628 residues

Total number of hits satisfying chosen parameters: 650591

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

1: Issued Patents AA:*

2: /EMC_Celerra_SIDS3/prodata/2/1aa/5 COMB.pep:*

3: /EMC_Celerra_SIDS3/prodata/2/1aa/7 COMB.pep:*

4: /EMC_Celerra_SIDS3/prodata/2/1aa/H COMB.pep:*

5: /EMC_Celerra_SIDS3/prodata/2/1aa/CTUS COMB.pep:*

6: /EMC_Celerra_SIDS3/prodata/2/1aa/RE COMB.pep:*

7: /EMC_Celerra_SIDS3/prodata/2/1aa/backfillseq.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	150	81.1	35	2	US-09-623-548A-381
2	150	81.1	35	2	US-09-657-276-381
3	150	81.1	155	2	US-08-950-720A-10
4	150	81.1	156	2	US-09-428-226A-7
5	150	81.1	156	2	US-09-972-809-7
6	150	81.1	156	2	US-09-972-809-7
7	150	81.1	180	1	US-07-953-230A-12
8	150	81.1	180	2	US-09-617-389B-19
9	150	81.1	180	7	5405942-4
10	150	81.1	180	7	5405942-4
11	150	81.1	180	7	5405942-4
12	150	81.1	180	7	5405942-4
13	150	81.1	180	7	5405942-4
14	150	81.1	180	7	5405942-4
15	150	81.1	180	7	5405942-4
16	150	81.1	180	7	5405942-4
17	150	81.1	180	7	5405942-4
18	150	81.1	180	7	5405942-4
19	150	81.1	180	7	5405942-4
20	150	81.1	180	7	5405942-4
21	150	81.1	180	7	5405942-4
22	150	81.1	180	7	5405942-4
23	150	81.1	180	7	5405942-4
24	150	81.1	180	7	5405942-4
25	150	81.1	180	7	5405942-4
26	150	81.1	180	7	5405942-4

27	48.5	26.2	472	2	US-09-667-265-1901	Sequence 1901, Ap
28	48.5	26.2	473	1	US-08-073-383-6	Sequence 6, Appl
29	48.5	26.2	473	2	US-09-460-421-17	Sequence 17, Appl
30	48.5	26.2	473	5	PCT-US94-06365-6	Sequence 6, Appl
31	48.5	26.2	473	1	US-08-481-658B-54	Sequence 54, Appl
32	48.5	26.2	473	1	US-08-477-504A-54	Sequence 54, Appl
33	48.5	26.2	473	1	US-08-486-756A-54	Sequence 54, Appl
34	48.5	26.2	473	1	US-08-485-862B-54	Sequence 54, Appl
35	48.5	26.2	473	2	US-08-487-077A-54	Sequence 54, Appl
36	48.5	26.2	473	2	US-08-485-863A-54	Sequence 54, Appl
37	48.5	26.2	473	2	US-08-485-049D-54	Sequence 54, Appl
38	48.5	26.2	473	2	US-09-772-719B-54	Sequence 54, Appl
39	48.5	26.2	473	1	US-08-481-658B-51	Sequence 51, Appl
40	48.5	26.2	473	1	US-08-477-504A-51	Sequence 51, Appl
41	48.5	26.2	473	1	US-08-486-756A-51	Sequence 51, Appl
42	48.5	26.2	473	1	US-08-485-862B-51	Sequence 51, Appl
43	48.5	26.2	473	2	US-08-487-077A-51	Sequence 51, Appl
44	48.5	26.2	473	2	US-08-485-863A-51	Sequence 51, Appl
45	48.5	26.2	473	2	US-08-485-049D-51	Sequence 51, Appl

ALIGNMENTS

RESULT 1

US-09-623-548A-381

Sequence 381, Application US/09623548A

Patent No. 6849714

GENERAL INFORMATION:

APPLICANT: Conjuchem, Inc.

APPLICANT: Brind, Dominique

APPLICANT: Milner, Peter

APPLICANT: Holmes, Darren

APPLICANT: Thibaudau, Karen

TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM

TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD

TITLE OF INVENTION: COMPONENTS

FILE REFERENCE: 2110

CURRENT APPLICATION NUMBER: US/09/623,548A

CURRENT FILING DATE: 2000-09-05

PRIOR APPLICATION NUMBER: 60/134,406

PRIOR FILING DATE: 1999-05-17

PRIOR APPLICATION NUMBER: 60/153,406

PRIOR FILING DATE: 1999-09-10

PRIOR APPLICATION NUMBER: 60/159,783

PRIOR FILING DATE: 1999-10-18

NUMBER OF SEQ ID NOS: 1617

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 381

LENGTH: 35

TYPE: PRT

ORGANISM: Artificial Sequence

FEATURE:

OTHER INFORMATION: Description of Artificial Sequence: Synthetic

OTHER INFORMATION: Peptide

US-09-623-548A-381

Query Match

Best local Similarity 79.4%; Pred. No. 1,7e-15;

Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

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1 DVSTSOAVLPDDFPRYPVGKFFQYDTWROSGRL 34

2 DVSTPTVLPDDFPRYPVGKFFQYDTWROSGRL 35

RESULT 2

US-09-657-276-381

Sequence 381, Application US/09657276

Patent No. 6887470

GENERAL INFORMATION:

APPLICANT: Conjuchem, Inc.

APPLICANT: Bridon, Dominique
APPLICANT: Ezrin, Alan
APPLICANT: Milner, Peter
APPLICANT: Holmes, Darren
APPLICANT: Thibaudau, Karen
TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
FILE REFERENCE: 2110
CURRENT APPLICATION NUMBER: US/09/657,276
CURRENT FILING DATE: 2000-09-07
PRIOR APPLICATION NUMBER: 60/134,406
PRIOR FILING DATE: 1999-05-17
PRIOR APPLICATION NUMBER: 60/153,406
PRIOR FILING DATE: 1999-09-10
PRIOR APPLICATION NUMBER: 60/159,783
PRIOR FILING DATE: 1999-10-18
NUMBER OF SEQ ID NOS: 1617
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 381
LENGTH: 35
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-09-657-276-381

Query Match 81.1%; Score 150; DB 2; Length 35;
Best Local Similarity 79.4%; Pred. No. 1,7e-15;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDFPRYPVGKFFQYDTWRQSGRL 34
DB 2 DVSTPPTVLPDNPFRYPVGKFFQYDTWKQSTQRL 35

RESULT 3
US-08-950-720A-10
Sequence 10, Application US/08950720A
Patent No. 6046028
GENERAL INFORMATION:
APPLICANT: Conklin, Darrell C.
APPLICANT: Lofton-Day, Catherine E.
APPLICANT: Lok, Si
APPLICANT: Jaepers, Stephen R.
TITLE OF INVENTION: INSULIN HOMOLOG
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: Zymogenetics, Inc.
STREET: 1201 Eastlake Avenue East
CITY: Seattle
STATE: WA
COUNTRY: USA
ZIP: 98102
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/950,720A
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Sawislak, Deborah A.
REGISTRATION NUMBER: 37,438
REFERENCE/DOCKET NUMBER: 96-09
TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-442-6672

TELEFAX: 206-442-6678
TELEX:
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 155 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: NO. 6046028e
US-08-950-720A-10

Query Match 81.1%; Score 150; DB 2; Length 155;
Best Local Similarity 79.4%; Pred. No. 9.2e-15;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDFPRYPVGKFFQYDTWRQSGRL 34
DB 93 DVSTPPTVLPDNPFRYPVGKFFQYDTWKQSTQRL 126

RESULT 4
US-09-428-226A-7
Sequence 7, Application US/09428226A
Patent No. 6548482
GENERAL INFORMATION:
APPLICANT: Sundeep, Khosla
APPLICANT: Conover, Cheryl A.
TITLE OF INVENTION: TREATMENT OF OSTEOPOROSIS
FILE REFERENCE: 07039/183001
CURRENT APPLICATION NUMBER: US/09/428,226A
CURRENT FILING DATE: 1999-10-27
PRIOR APPLICATION NUMBER: 09/073,032
PRIOR FILING DATE: 1998-05-05
PRIOR APPLICATION NUMBER: 60/045,607
PRIOR FILING DATE: 1997-05-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 7
LENGTH: 156
TYPE: PRT
ORGANISM: Homo sapiens
US-09-428-226A-7

Query Match 81.1%; Score 150; DB 2; Length 156;
Best Local Similarity 79.4%; Pred. No. 9.2e-15;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDFPRYPVGKFFQYDTWRQSGRL 34
DB 69 DVSTPPTVLPDNPFRYPVGKFFQYDTWKQSTQRL 102

RESULT 5
US-09-972-809-7
Sequence 7, Application US/09972809
Patent No. 6693084
GENERAL INFORMATION:
APPLICANT: Sundeep, Khosla
APPLICANT: Conover, Cheryl A.
TITLE OF INVENTION: TREATMENT OF OSTEOPOROSIS
FILE REFERENCE: 07039/183001
CURRENT APPLICATION NUMBER: US/09/972,809
CURRENT FILING DATE: 2001-10-05
PRIOR APPLICATION NUMBER: 09/428,226
PRIOR FILING DATE: 1999-10-27
PRIOR APPLICATION NUMBER: 60/045,607
PRIOR FILING DATE: 1997-05-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 7
LENGTH: 156
TYPE: PRT
ORGANISM: Homo sapiens


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/ LENGTH: 180
/ TYPE: PRT
/ ORGANISM: Human
US-09-617-389B-19

Query Match
Best Local Similarity 81.1%; Score 150; DB 2; Length 180;
Best Local Similarity 79.4%; Pred. No. 1.1e-14;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRYVGVKFFQYDTWRQAGRL 34
DB 93 DVSTPPTVLPDNPFRYPVGVKFFQYDTWRQAGRL 126

RESULT 9
5405942-4
/ Patent No. 5405942
/ APPLICANT: BELL, GRAEME I.; RALL, LESLIE B.; MERRYWEATHER,
/ JAMES P.
/ TITLE OF INVENTION: PREPRO INSULIN-LIKE GROWTH FACTORS
/ 1 AND 11
/ NUMBER OF SEQUENCES: 16
/ CURRENT APPLICATION NUMBER: US/07/65,673
/ FILING DATE: 16-JUN-1987
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: 630,557
/ FILING DATE: 19-JUL-1984
/ SEQ ID NO: 4
/ LENGTH: 180
5405942-4

Query Match
Best Local Similarity 81.1%; Score 150; DB 7; Length 180;
Best Local Similarity 79.4%; Pred. No. 1.1e-14;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRYVGVKFFQYDTWRQAGRL 34
DB 93 DVSTPPTVLPDNPFRYPVGVKFFQYDTWRQAGRL 126

RESULT 10
US-09-623-548A-380
/ Sequence 380, Application US/09623548A
/ Patent No. 6849714
/ GENERAL INFORMATION:
/ APPLICANT: Conjuchem, Inc.
/ APPLICANT: Bridon, Dominique
/ APPLICANT: Ezrin, Alan
/ APPLICANT: Milner, Peter
/ APPLICANT: Holmes, Darren
/ APPLICANT: Thibaudreau, Karen
/ TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
/ TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
/ TITLE OF INVENTION: COMPONENTS
/ FILE REFERENCE: 2110
/ CURRENT APPLICATION NUMBER: US/09/623,548A
/ CURRENT FILING DATE: 2000-09-05
/ PRIOR APPLICATION NUMBER: 60/134,406
/ PRIOR FILING DATE: 1999-05-17
/ PRIOR APPLICATION NUMBER: 60/153,406
/ PRIOR FILING DATE: 1999-09-10
/ PRIOR APPLICATION NUMBER: 60/159,783
/ PRIOR FILING DATE: 1999-10-18
/ NUMBER OF SEQ ID NOS: 1617
/ SOFTWARE: PatentIn Ver. 2.1
/ SEQ ID NO 380
/ LENGTH: 16
/ TYPE: PRT
/ ORGANISM: Artificial Sequence
/ FEATURE:
/ OTHER INFORMATION: Description of Artificial Sequence: Synthetic
/ OTHER INFORMATION: Peptide
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US-09-623-548A-380

Query Match
Best Local Similarity 34.6%; Score 64; DB 2; Length 16;
Best Local Similarity 75.0%; Pred. No. 0.0058;
Matches 12; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRY 16
DB 1 DVSTPPTVLPDNPFRY 16

RESULT 11
US-10-360-101-185
/ Sequence 185, Application US/10360101
/ Patent No. 6861236
/ GENERAL INFORMATION:
/ APPLICANT: Moll, Gert N.
/ APPLICANT: Leenhouts, Cornelis J.
/ TITLE OF INVENTION: Export and modification of (poly)peptide in the antibiotic way
/ FILE REFERENCE: 2183-5673
/ CURRENT APPLICATION NUMBER: US/10/360,101
/ CURRENT FILING DATE: 2003-02-07
/ PRIOR APPLICATION NUMBER: EP 02077060.8
/ PRIOR FILING DATE: 2002-05-24
/ NUMBER OF SEQ ID NOS: 309
/ SOFTWARE: PatentIn version 3.1
/ SEQ ID NO 185
/ LENGTH: 16
/ TYPE: PRT
/ ORGANISM: Artificial Sequence
/ FEATURE:
/ OTHER INFORMATION: (C7)-sequence of IGF II 69-84
US-10-360-101-185

Query Match
Best Local Similarity 34.6%; Score 64; DB 2; Length 16;
Best Local Similarity 75.0%; Pred. No. 0.0058;
Matches 12; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRY 16
DB 1 DVSTPPTVLPDNPFRY 16

RESULT 12
US-09-657-276-380
/ Sequence 380, Application US/09657276
/ Patent No. 6887470
/ GENERAL INFORMATION:
/ APPLICANT: Conjuchem, Inc.
/ APPLICANT: Bridon, Dominique
/ APPLICANT: Ezrin, Alan
/ APPLICANT: Milner, Peter
/ APPLICANT: Holmes, Darren
/ APPLICANT: Thibaudreau, Karen
/ TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
/ TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
/ TITLE OF INVENTION: COMPONENTS
/ FILE REFERENCE: 2110
/ CURRENT APPLICATION NUMBER: US/09/657,276
/ CURRENT FILING DATE: 2000-09-07
/ PRIOR APPLICATION NUMBER: 60/134,406
/ PRIOR FILING DATE: 1999-05-17
/ PRIOR APPLICATION NUMBER: 60/153,406
/ PRIOR FILING DATE: 1999-09-10
/ PRIOR APPLICATION NUMBER: 60/159,783
/ PRIOR FILING DATE: 1999-10-18
/ NUMBER OF SEQ ID NOS: 1617
/ SOFTWARE: PatentIn Ver. 2.1
/ SEQ ID NO 380
/ LENGTH: 16
/ TYPE: PRT
/ ORGANISM: Artificial Sequence
/ FEATURE:
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OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: Peptide
US-09-657-276-380

Query Match 34.6%; Score 64; DB 2; Length 16;
Best Local Similarity 75.0%; Pred. No. 0.0058;
Matches 12; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 DVSTQAVLPDDPRY 16
DB 1 DVSTPPTVLPDNPFRY 16

RESULT 13

US-10-104-047-2454
Sequence 2454, Application US/10104047
Patent No. 6943241
GENERAL INFORMATION:
APPLICANT: HELIX RESEARCH INSTITUTE
TITLE OF INVENTION: No. 6943241el full length cDNA
FILE REFERENCE: H1-A0105
CURRENT APPLICATION NUMBER: US/10/104,047
CURRENT FILING DATE: 2002-03-25
PRIOR APPLICATION NUMBER:
PRIOR FILING DATE:
NUMBER OF SEQ ID NOS: 4096
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 2454
LENGTH: 403
TYPE: PRT
ORGANISM: Homo sapiens
US-10-104-047-2454

Query Match 29.7%; Score 55; DB 2; Length 403;
Best Local Similarity 41.4%; Pred. No. 5;
Matches 12; Conservative 4; Mismatches 9; Indels 4; Gaps 1;

QY 10 PDDFPRYPV---GKFRQYTWRSAGRL 34
DB 177 PDDIPRIPTAFGRAIRHTGSLAFGSL 205

RESULT 14

US-10-104-047-3465
Sequence 3465, Application US/10104047
Patent No. 6943241
GENERAL INFORMATION:
APPLICANT: HELIX RESEARCH INSTITUTE
TITLE OF INVENTION: No. 6943241el full length cDNA
FILE REFERENCE: H1-A0105
CURRENT APPLICATION NUMBER: US/10/104,047
CURRENT FILING DATE: 2002-03-25
PRIOR APPLICATION NUMBER:
PRIOR FILING DATE:
NUMBER OF SEQ ID NOS: 4096
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 3465
LENGTH: 717
TYPE: PRT
ORGANISM: Homo sapiens
US-10-104-047-3465

Query Match 28.6%; Score 53; DB 2; Length 717;
Best Local Similarity 41.4%; Pred. No. 19;
Matches 12; Conservative 3; Mismatches 10; Indels 4; Gaps 1;

QY 10 PDDFPRYP---VGKFRQYTWRSAGRL 34
DB 493 PDDIPRIPTAFGRAIRHTGSLAFGSL 521

RESULT 15
US-09-336-643A-14

Sequence 14, Application US/09336643A
Patent No. 6399761
GENERAL INFORMATION:
APPLICANT: Miller, Andrew P.
APPLICANT: Curran, Mark Edward
APPLICANT: Hu, Ping
APPLICANT: Rutter, Marc
APPLICANT: Wang, Jian-Wang
TITLE OF INVENTION: No. 6399761el Human Potassium Channels
FILE REFERENCE: SEQ-15P
CURRENT APPLICATION NUMBER: US/09/336,643A
CURRENT FILING DATE: 1999-06-18
PRIOR APPLICATION NUMBER: 60/076,687
PRIOR FILING DATE: 1998-08-07
PRIOR APPLICATION NUMBER: 60/116,448
PRIOR FILING DATE: 1999-01-19
PRIOR APPLICATION NUMBER: PCT/US99/03826
PRIOR FILING DATE: 1999-02-22
NUMBER OF SEQ ID NOS: 87
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 14
LENGTH: 256
TYPE: PRT
ORGANISM: H. sapiens
FEATURE:
NAME/KEY: VARIANT
LOCATION: (1)...(256)
OTHER INFORMATION: Xaa = Any Amino Acid
US-09-336-643A-14

Query Match 28.4%; Score 52.5; DB 2; Length 256;
Best Local Similarity 32.4%; Pred. No. 7.1;
Matches 12; Conservative 7; Mismatches 7; Indels 11; Gaps 2;

QY 4 TSQAVLPDDFPRYPV---GKFRQ-----YDTRQ 29
DB 93 TSKLIPDDPKDYTLTYEAKYFQLQPMLEMERWQ 129

Search completed: May 21, 2006, 12:48:28
Job time : 31 secs

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OM protein - protein search, using sw model

Run on: May 21, 2006, 12:47:06 ; Search time 103 Seconds

(Without alignments)
152.906 Million cell updates/sec

Title: US-10-632-366-3

Perfect score: 185
Sequence: 1 DVSTSQAVLPDDPPRYVKGKFOYDTWROSAGRL 34

Scoring table:

BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2097797 seqs, 463214858 residues

Total number of hits satisfying chosen parameters: 2097797

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

Database :

Published Applications AA Main:*

- 1: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US07_PUBCOMB.pep:*
- 2: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US08_PUBCOMB.pep:*
- 3: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US09_PUBCOMB.pep:*
- 4: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US10_PUBCOMB.pep:*
- 5: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US10B_PUBCOMB.pep:*
- 6: /EMC_Celerra_SIDS3/prodata/2/pubppaa/US11_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	* Query Match	Length	DB	ID	Description
1	185	100.0	34	3	US-09-745-078A-4	Sequence 4, App11
2	185	100.0	34	4	US-10-374-624-4	Sequence 4, App11
3	185	100.0	34	4	US-10-632-366-3	Sequence 3, App11
4	185	100.0	351	4	US-10-388-838-107	Sequence 107, App
5	177	95.7	34	3	US-09-745-078A-3	Sequence 3, App11
6	177	95.7	34	4	US-10-374-624-3	Sequence 3, App11
7	177	95.7	34	4	US-10-632-366-2	Sequence 2, App11
8	177	95.7	180	4	US-10-258-666-2	Sequence 2, App11
9	150	81.1	34	3	US-09-745-078A-2	Sequence 2, App11
10	150	81.1	34	4	US-10-374-624-2	Sequence 2, App11
11	150	81.1	34	4	US-10-632-366-1	Sequence 1, App11
12	150	81.1	35	6	US-11-066-697-381	Sequence 381, App
13	150	81.1	156	3	US-09-972-809-7	Sequence 7, App11
14	150	81.1	156	5	US-10-872-198-122	Sequence 122, App
15	150	81.1	156	6	US-11-021-951-122	Sequence 122, App
16	150	81.1	176	4	US-10-388-838-112	Sequence 112, App
17	150	81.1	180	4	US-10-081-119-38	Sequence 38, App11
18	150	81.1	180	4	US-10-136-841-2	Sequence 2, App11
19	150	81.1	180	4	US-10-097-340-145	Sequence 145, App
20	150	81.1	180	4	US-10-295-027-199	Sequence 199, App
21	150	81.1	180	4	US-10-272-531A-2	Sequence 2, App11
22	150	81.1	180	4	US-10-173-999-99	Sequence 99, App11
23	150	81.1	180	4	US-10-272-483A-2	Sequence 2, App11
24	150	81.1	180	4	US-10-443-466A-21	Sequence 21, App11
25	150	81.1	180	4	US-10-188-832-84	Sequence 84, App11
26	150	81.1	180	4	US-10-700-725-19	Sequence 19, App11
27	150	81.1	180	4	US-10-706-791-5	Sequence 5, App11

28	150	81.1	180	4	US-10-770-668-46	Sequence 46, App1
29	150	81.1	180	5	US-10-741-600-1133	Sequence 1133, App
30	150	81.1	180	5	US-10-951-389-38	Sequence 38, App1
31	150	81.1	180	5	US-10-951-406-38	Sequence 38, App1
32	150	81.1	180	5	US-10-951-477-38	Sequence 38, App1
33	150	81.1	180	5	US-10-977-087-38	Sequence 38, App1
34	150	81.1	180	5	US-10-981-267-2	Sequence 2, App11
35	150	81.1	180	6	US-11-049-518-18	Sequence 18, App1
36	150	81.1	180	6	US-11-050-926-145	Sequence 145, App
37	150	81.1	225	5	US-10-821-234-971	Sequence 971, App
38	146	78.9	33	3	US-09-745-078A-5	Sequence 5, App11
39	146	78.9	33	4	US-10-374-624-5	Sequence 5, App11
40	144	77.8	1107	6	US-11-057-058-41	Sequence 41, App1
41	143	77.3	30	3	US-09-745-078A-8	Sequence 8, App11
42	143	77.3	30	4	US-10-374-624-8	Sequence 8, App11
43	143	77.3	31	3	US-09-745-078A-7	Sequence 7, App11
44	143	77.3	31	4	US-10-374-624-7	Sequence 7, App11
45	143	77.3	32	3	US-09-745-078A-6	Sequence 6, App11

ALIGNMENTS

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RESULT 1
US-09-745-078A-4
; Sequence 4, Application US/09745078A
; Publication No. US20030504341
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 44184200100
; CURRENT APPLICATION NUMBER: US/09/745,078A
; CURRENT FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 34
; TYPE: PRP
; ORGANISM: Mus Musculus
; FEATURE:
; OTHER INFORMATION: Preptin
US-09-745-078A-4

Query Match      100.0%; Score 185; DB 3; Length 34;
Best Local Similarity 100.0%; Pred. No. 3.8e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDPPRYVKGKFOYDTWROSAGRL 34
Db      1 DVSTSQAVLPDDPPRYVKGKFOYDTWROSAGRL 34

RESULT 2
US-10-374-624-4
; Sequence 4, Application US/10374624
; Publication No. US20030166561A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 44184200100
; CURRENT APPLICATION NUMBER: US/10/374,624
; CURRENT FILING DATE: 2003-02-24
; PRIOR APPLICATION NUMBER: US/09/745,078A
; PRIOR FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
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;; PRIOR FILING DATE: 2000-06-19
;; NUMBER OF SEQ ID NOS: 35
;; SOFTWARE: FastSeq for Windows Version 4.0
;; SEQ ID NO: 4
;; LENGTH: 34
;; TYPE: PRT
;; ORGANISM: Mus Musculus
;; FEATURE:
;; OTHER INFORMATION: Preptin
US-10-374-624-4

Query Match 100.0%; Score 185; DB 4; Length 34;
Best Local Similarity 100.0%; Pred. No. 3,8e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVKFFQYDTWROSAGRL 34
DB 1 DVSTSOAVLPDDPPRYVGVKFFQYDTWROSAGRL 34

RESULT 3
US-10-632-366-3
; Sequence 3; Application US/10632366
; Publication No. US20040142393A1
; GENERAL INFORMATION:
; APPLICANT: COOPER, GARTH JAMES SMITH
; APPLICANT: BUCHANAN, CHRISTINE MARIE
; APPLICANT: JAMES, GABRIEL CHRISTOPHER
; TITLE OF INVENTION: METHODS OF USE OF COMPOUNDS WITH PREPTIN FUNCTION
; FILE REFERENCE: 49123.000033.UTL1
; CURRENT APPLICATION NUMBER: US/10/632,366
; PRIOR FILING DATE: 2003-07-31
; PRIOR APPLICATION NUMBER: 60/400,445
; PRIOR FILING DATE: 2002-08-01
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 3
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-632-366-3

Query Match 100.0%; Score 185; DB 4; Length 34;
Best Local Similarity 100.0%; Pred. No. 3,8e-19;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVKFFQYDTWROSAGRL 34
DB 1 DVSTSOAVLPDDPPRYVGVKFFQYDTWROSAGRL 34

RESULT 4
US-10-388-838-107
; Sequence 107; Application US/10388838
; Publication No. US20040180344A1
; GENERAL INFORMATION:
; APPLICANT: David W. Morris
; APPLICANT: Marc Malandro
; TITLE OF INVENTION: Novel Therapeutic Targets in Cancer
; FILE REFERENCE: 529452001600
; CURRENT APPLICATION NUMBER: US/10/388,838
; PRIOR FILING DATE: 2003-03-14
; NUMBER OF SEQ ID NOS: 114
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 107
; LENGTH: 351
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-388-838-107

Query Match 100.0%; Score 185; DB 4; Length 351;
Best Local Similarity 100.0%; Pred. No. 4,7e-18;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVKFFQYDTWROSAGRL 34
DB 264 DVSTSOAVLPDDPPRYVGVKFFQYDTWROSAGRL 297

RESULT 5
US-09-745-078A-3
; Sequence 3; Application US/09745078A
; Publication No. US20030050434A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 44184200100
; CURRENT APPLICATION NUMBER: US/09/745,078A
; PRIOR FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Rattus Sp.
; FEATURE:
; OTHER INFORMATION: Preptin
US-09-745-078A-3

Query Match 95.7%; Score 177; DB 3; Length 34;
Best Local Similarity 94.1%; Pred. No. 5,4e-18;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVKFFQYDTWROSAGRL 34
DB 1 DVSTSOAVLPDDPPRYVGVKFFQYDTWROSAGRL 34

RESULT 6
US-10-374-624-3
; Sequence 3; Application US/10374624
; Publication No. US20030166561A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 44184200100
; CURRENT APPLICATION NUMBER: US/10/374,624
; PRIOR FILING DATE: 2003-02-24
; PRIOR APPLICATION NUMBER: US/09/745,078A
; PRIOR FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Rattus Sp.
; FEATURE:
; OTHER INFORMATION: Preptin
US-10-374-624-3

Query Match 95.7%; Score 177; DB 4; Length 34;
Best Local Similarity 94.1%; Pred. No. 5,4e-18;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSOAVLPDDPPRYVGVKFFQYDTWROSAGRL 34
DB 1 DVSTSOAVLPDDPPRYVGVKFFQYDTWROSAGRL 34

Db 1 DVSTSQAVLPDDPPRYPVGKFFKFDTWROSAGRL 34

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RESULT 7
US-10-632-366-2
; Sequence 2, Application US/10632366
; Publication No. US20040142393A1
; GENERAL INFORMATION:
; APPLICANT: BUCHANAN, GARTH JAMES SMITH
; APPLICANT: COOPER, GABRIEL CHRISTOPHER
; APPLICANT: JAMES, GABRIEL CHRISTOPHER
; TITLE OF INVENTION: METHODS OF USE OF COMPOUNDS WITH PREPTIN FUNCTION
; FILE REFERENCE: 49123.000033.UTL1
; CURRENT APPLICATION NUMBER: US/10/632,366
; PRIOR FILING DATE: 2003-07-31
; PRIOR APPLICATION NUMBER: 60/400,445
; PRIOR FILING DATE: 2002-08-01
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-10-632-366-2
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Query Match 95.7%; Score 177; DB 4; Length 34;
Best Local Similarity 94.1%; Pred. No. 5,4e-18;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRYPVGKFFKFDTWROSAGRL 34
Db 1 DVSTSQAVLPDDPPRYPVGKFFKFDTWROSAGRL 34

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RESULT 8
US-10-258-666-2
; Sequence 2, Application US/10258666
; Publication No. US20040005578A1
; GENERAL INFORMATION:
; APPLICANT: Yamada, Yoji
; APPLICANT: Sekine, Susumu
; APPLICANT: Kikuchi, Yasuhiro
; APPLICANT: Sakurada, Kazuhiro
; APPLICANT: Kyowa Hakko Kogyo Co., Ltd.
; TITLE OF INVENTION: Myocardial Cell Proliferation-Associated Genes
; FILE REFERENCE: 082382-000000US
; CURRENT APPLICATION NUMBER: US/10/258,666
; CURRENT FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: JP 2000-126741
; PRIOR FILING DATE: 2000-04-27
; PRIOR APPLICATION NUMBER: WO PCT/JP01/03700
; PRIOR FILING DATE: 2001-04-27
; NUMBER OF SEQ ID NOS: 42
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
; LENGTH: 180
; TYPE: PRT
; ORGANISM: Rattus norvegicus
; FEATURE:
; OTHER INFORMATION: RHDH-009, IGF-II
US-10-258-666-2
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Query Match 95.7%; Score 177; DB 4; Length 180;
Best Local Similarity 94.1%; Pred. No. 3.3e-17;
Matches 32; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRYPVGKFFKFDTWROSAGRL 34
Db 93 DVSTSQAVLPDDPPRYPVGKFFKFDTWROSAGRL 126

RESULT 9
US-09-745-078A-2

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; Sequence 2, Application US/09745078A
; Publication No. US20030050434A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 441842000100
; CURRENT APPLICATION NUMBER: US/09/745,078A
; CURRENT FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo Sapien
; FEATURE:
; OTHER INFORMATION: Preptin
US-09-745-078A-2
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Query Match 81.1%; Score 150; DB 3; Length 34;
Best Local Similarity 79.4%; Pred. No. 4.2e-14;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRYPVGKFFKFDTWROSAGRL 34
Db 1 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTQRL 34

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RESULT 10
US-10-374-624-2
; Sequence 2, Application US/10374624
; Publication No. US20030166561A1
; GENERAL INFORMATION:
; APPLICANT: Garth J. S. COOPER
; APPLICANT: Christina M. BUCHANAN
; TITLE OF INVENTION: PEPTIDE
; FILE REFERENCE: 441842000100
; CURRENT APPLICATION NUMBER: US/10/374,624
; CURRENT FILING DATE: 2003-02-24
; PRIOR APPLICATION NUMBER: US/09/745,078A
; PRIOR FILING DATE: 2000-12-20
; PRIOR APPLICATION NUMBER: NZ336359
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: PCT/NZ00/00102
; PRIOR FILING DATE: 2000-06-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo Sapien
; FEATURE:
; OTHER INFORMATION: Preptin
US-10-374-624-2
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Query Match 81.1%; Score 150; DB 4; Length 34;
Best Local Similarity 79.4%; Pred. No. 4.2e-14;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 1 DVSTSQAVLPDDPPRYPVGKFFQYDTWKOSTQRL 34
Db 1 DVSTPPTVLPDNPFRYPVGKFFQYDTWKOSTQRL 34

RESULT 11
US-10-632-366-1
; Sequence 1, Application US/10632366
; Publication No. US20040142393A1
; GENERAL INFORMATION:

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; APPLICANT: COOPER, GARTH JAMES SMITH
; APPLICANT: BUCHANAN, CHRISTINE MARIE
; APPLICANT: JAMES, GABRIEL CHRISTOPHER
; TITLE OF INVENTION: METHODS OF USE OF COMPOUNDS WITH PREPTIN FUNCTION
; FILE REFERENCE: 4913.00033.UTL1
; CURRENT APPLICATION NUMBER: US/10/632,366
; CURRENT FILING DATE: 2003-07-31
; PRIOR APPLICATION NUMBER: 60/400,445
; PRIOR FILING DATE: 2002-08-01
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-632-366-1
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Query Match      81.1%; Score 150; DB 4; Length 34;
Best Local Similarity 79.4%; Pred. No. 4.2e-14;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;
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Qy      1 DVSTSQAVLPDDPFRYPVGKFFQYDTWROSAGRL 34
Db      1 DVSTPPTVLPDNPFRYPVGKFFQYDTWKSTQRL 34
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RESULT 12
US-11-066-697-381
; Sequence 381, Application US/11066697
; Publication No. US20050187159A1
; GENERAL INFORMATION:
; APPLICANT: Bridon, Dominique P.
; APPLICANT: Ezrin, Alan M.
; APPLICANT: Milner, Peter G.
; APPLICANT: Holmes, Darren L.
; APPLICANT: Thibudeau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 500862002301
; CURRENT APPLICATION NUMBER: US/11/066,697
; CURRENT FILING DATE: 2005-02-25
; PRIOR APPLICATION NUMBER: 09/657,276
; PRIOR FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-15
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 381
; LENGTH: 35
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-11-066-697-381
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Query Match      81.1%; Score 150; DB 6; Length 35;
Best Local Similarity 79.4%; Pred. No. 4.4e-14;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;
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Qy      1 DVSTSQAVLPDDPFRYPVGKFFQYDTWROSAGRL 34
Db      2 DVSTPPTVLPDNPFRYPVGKFFQYDTWKSTQRL 35
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RESULT 13
US-09-972-809-7
; Sequence 7, Application US/09972809
; Patent No. US20020151490A1
; GENERAL INFORMATION:
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; APPLICANT: Sundeeep, Khosla
; APPLICANT: Conover, Cheryl A.
; TITLE OF INVENTION: TREATMENT OF OSTEOPOROSIS
; FILE REFERENCE: 07039/183001
; CURRENT APPLICATION NUMBER: US/09/972,809
; CURRENT FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: 09/428,226
; PRIOR FILING DATE: 1999-10-27
; PRIOR APPLICATION NUMBER: 60/045,607
; PRIOR FILING DATE: 1997-05-05
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 156
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-972-809-7
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Query Match      81.1%; Score 150; DB 3; Length 156;
Best Local Similarity 79.4%; Pred. No. 2.2e-13;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;
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Qy      1 DVSTSQAVLPDDPFRYPVGKFFQYDTWROSAGRL 34
Db      69 DVSTPPTVLPDNPFRYPVGKFFQYDTWKSTQRL 102
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RESULT 14
US-10-872-198-122
; Sequence 122, Application US/10872198
; Publication No. US20050002897A1
; GENERAL INFORMATION:
; APPLICANT: Ulrich HAUPTS
; APPLICANT: Andre KOLTERMANN
; APPLICANT: Andreas SCHEIDIG
; APPLICANT: Christian VOETSMERER
; APPLICANT: Ulrich Ketting
; TITLE OF INVENTION: NEW BIOLOGICAL ENTITIES AND USE THEREOF
; FILE REFERENCE: 04156.000204
; CURRENT APPLICATION NUMBER: US/10/872,198
; CURRENT FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 60/543,518
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/524,960
; PRIOR FILING DATE: 2003-11-25
; PRIOR APPLICATION NUMBER: EP 04003058
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: EP 03025871
; PRIOR FILING DATE: 2003-11-11
; PRIOR APPLICATION NUMBER: EP 03025851
; PRIOR FILING DATE: 2003-11-10
; PRIOR APPLICATION NUMBER: EP 03013819
; PRIOR FILING DATE: 2003-06-18
; NUMBER OF SEQ ID NOS: 149
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 122
; LENGTH: 156
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-872-198-122
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Query Match      81.1%; Score 150; DB 5; Length 156;
Best Local Similarity 79.4%; Pred. No. 2.2e-13;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;
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Qy      1 DVSTSQAVLPDDPFRYPVGKFFQYDTWROSAGRL 34
Db      69 DVSTPPTVLPDNPFRYPVGKFFQYDTWKSTQRL 102
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RESULT 15
US-11-021-951-122
; Sequence 122, Application US/11021951
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/ Publication No. US20050175581A1
/ GENERAL INFORMATION:
/ APPLICANT: HAUPTS, Ulrich
/ APPLICANT: KOLTERMANN, Andre
/ APPLICANT: SCHEIDIG, Andreas
/ APPLICANT: VOTSMEIER, Christian
/ APPLICANT: Ketting, Ulrich
/ APPLICANT: COCO, Wayne Michael
/ TITLE OF INVENTION: New Biological Entities And The Pharmaceutical
/ TITLE OF INVENTION: And Diagnostic Use Thereof
/ FILE REFERENCE: 04156.000205
/ CURRENT APPLICATION NUMBER: US/11/021,951
/ CURRENT FILING DATE: 2004-12-22
/ PRIOR APPLICATION NUMBER: 10/872,198
/ PRIOR FILING DATE: 2004-06-18
/ PRIOR APPLICATION NUMBER: 60/543,518
/ PRIOR FILING DATE: 2004-02-11
/ PRIOR APPLICATION NUMBER: 60/524,960
/ PRIOR FILING DATE: 2003-11-25
/ PRIOR APPLICATION NUMBER: EP 04003058
/ PRIOR FILING DATE: 2004-02-11
/ PRIOR APPLICATION NUMBER: EP 03025871
/ PRIOR FILING DATE: 2003-11-11
/ PRIOR APPLICATION NUMBER: EP 03025851
/ PRIOR FILING DATE: 2003-11-10
/ PRIOR APPLICATION NUMBER: EP 03013819
/ PRIOR FILING DATE: 2003-06-18
/ NUMBER OF SEQ ID NOS: 191
/ SOFTWARE: PatentIn version 3.1
/ SEQ ID NO 122
/ LENGTH: 156
/ TYPE: PRT
/ ORGANISM: Homo sapiens
/ US-11-021-951-122

Query Match      81.1%; Score 150; DB 6; Length 156;
Best Local Similarity 79.4%; Pred. No. 2,2e-13;
Matches 27; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY      1 DVSTSQAVLPDDPFRYPVGKFFQYDTWRQSGARL 34
      |||:|||||:|||||:|||||:|||||:
DB      69 DVSTPPTVLPDNPFRYPVGKFFQYDTWKQSTQRL 102

Search completed: May 21, 2006, 12:53:43
Job time : 103.333 secs
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; Sequence 393, Application US/10505928
; Publication No. US20060088532A1
; GENERAL INFORMATION:
; APPLICANT: Ludwig Institute for Cancer Research et al.
; TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
; FILE REFERENCE: 28967/39178
; CURRENT APPLICATION NUMBER: US/10/505,928
; CURRENT FILING DATE: 2004-08-27
; PRIOR APPLICATION NUMBER: US 60/363,019
; PRIOR FILING DATE: 2002-03-07
; NUMBER OF SEQ ID NOS: 866
; SOFTWARE: Patentin 3.2
; SEQ ID NO 393
; LENGTH: 667
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-505-928-393
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Query Match          20.8%; Score 38.5; DB 6; Length 667;
Best Local Similarity 31.1%; Pred. No. 1.7e+02;
Matches 14; Conservative 1; Mismatches 15; Indels 15; Gaps 2;
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OY      3  TSGAVLPDDPPRYPVK-----FQY-----DTWRQSAQ 32
Db      188 SASTADYNRDSFGYPSSKPAKSTFPSSFFWQDGHSSDPWSSSG 232
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RESULT 14
US-11-271-008-7
; Sequence 7, Application US/11271008
; Publication No. US20060093610A1
; GENERAL INFORMATION:
; APPLICANT: Lang, Alois B.
; APPLICANT: Horn, Michael P.
; APPLICANT: Imboden, Martin A.
; TITLE OF INVENTION: Human Monoclonal Antibody Specific for Lipopolysaccharides (LPS)
; FILE REFERENCE: 29474-5015
; CURRENT APPLICATION NUMBER: US/11/271,008
; CURRENT FILING DATE: 2005-11-10
; PRIOR APPLICATION NUMBER: PCT/EP2004/004485
; PRIOR FILING DATE: 2004-04-28
; PRIOR APPLICATION NUMBER: EP 03 010 836.9
; PRIOR FILING DATE: 2003-05-14
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patentin version 3.3
; SEQ ID NO 7
; LENGTH: 107
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-271-008-7
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Query Match          20.5%; Score 38; DB 7; Length 107;
Best Local Similarity 30.8%; Pred. No. 25;
Matches 8; Conservative 5; Mismatches 13; Indels 0; Gaps 0;
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OY      4  TSGAVLPDDPPRYVGKFGQYDTWRQ 29
Db      74  TISLQPDPAFYCCQYKSYVFGQ 99
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RESULT 15
US-10-505-928-300
; Sequence 300, Application US/10505928
; Publication No. US20060088532A1
; GENERAL INFORMATION:
; APPLICANT: Ludwig Institute for Cancer Research et al.
; TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
; FILE REFERENCE: 28967/39178
; CURRENT APPLICATION NUMBER: US/10/505,928
; CURRENT FILING DATE: 2004-08-27
; PRIOR APPLICATION NUMBER: US 60/363,019
; PRIOR FILING DATE: 2002-03-07
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; NUMBER OF SEQ ID NOS: 866
; SOFTWARE: Patentin 3.2
; SEQ ID NO 300
; LENGTH: 847
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-505-928-300
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Query Match          20.5%; Score 38; DB 6; Length 847;
Best Local Similarity 46.7%; Pred. No. 2.6e+02;
Matches 7; Conservative 3; Mismatches 5; Indels 0; Gaps 0;
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OY      4  TSGAVLPDDPPRYPV 18
Db      376 THTVLPALRWPV 390
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Search completed: May 21, 2006, 12:54:00
Job time : 4 secs
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; Publication No. US20060088532A1
; GENERAL INFORMATION:
; APPLICANT: Ludwig Institute for Cancer Research et al.
; TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
; FILE REFERENCE: 28967/39178
; CURRENT APPLICATION NUMBER: US/10/505,928
; CURRENT FILING DATE: 2004-08-27
; PRIOR APPLICATION NUMBER: US 60/363,019
; PRIOR FILING DATE: 2002-03-07
; NUMBER OF SEQ ID NOS: 866
; SOFTWARE: PatentIn 3.2
; SEQ ID NO 449
; LENGTH: 3396
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-505-928-449

Query Match      21.4%; Score 39.5; DB 6; Length 3396;
Best Local Similarity 29.6%; Pred. No. 7.7e+02;
Matches      8; Conservative      5; Mismatches 13; Indels      1; Gaps      1;

QY      2 VSTQAVLPDDPPRYPVYGFQYDTPR 28
Db      3226 IGLNDKMFHDF-RWTDGSLTQYENMR 3251

RESULT 10
US-11-249-111-102
; Sequence 102, Application US/11249111
; Publication No. US20060099623A1
; GENERAL INFORMATION:
; APPLICANT: Glenn, Matthew
; APPLICANT: Lubbers, Mark W
; APPLICANT: Dekker, James
; TITLE OF INVENTION: Polynucleotides and polypeptides isolated from Lactobacillus
; TITLE OF INVENTION: and methods for their use.
; FILE REFERENCE: 13353.1048uic2
; CURRENT APPLICATION NUMBER: US/11/249,111
; CURRENT FILING DATE: 2005-10-11
; PRIOR APPLICATION NUMBER: 10/288,930
; PRIOR FILING DATE: 2002-11-05
; PRIOR APPLICATION NUMBER: 09/724,623
; PRIOR FILING DATE: 2000-11-28
; PRIOR APPLICATION NUMBER: 60/148,801
; PRIOR FILING DATE: 1999-12-02
; NUMBER OF SEQ ID NOS: 124
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 102
; LENGTH: 323
; TYPE: PRT
; ORGANISM: Lactobacillus rhamnosus
US-11-249-111-102

Query Match      21.1%; Score 39; DB 7; Length 323;
Best Local Similarity 33.3%; Pred. No. 64;
Matches      8; Conservative      5; Mismatches 11; Indels      0; Gaps      0;

QY      2 VSTQAVLPDDPPRYPVYGFQYD 25
Db      7 ISATQHHPDCCQIPRTGDSFFD 30

RESULT 11
US-10-511-937-2979
; Sequence 2979, Application US/10511937
; Publication No. US20060088836A1
; GENERAL INFORMATION:
; APPLICANT: EXPRESSION DIAGNOSTICS, INC.
; APPLICANT: Wohlgenuth, Jay
; APPLICANT: Fry, Kirk
; APPLICANT: Woodward, Robert
; APPLICANT: Ly, Ngoc
; APPLICANT: Prentice, James
US-10-511-937-2979
```

```

; APPLICANT: Morris, MacDonald
; APPLICANT: Rosenberg, Steven
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR DIAGNOSING
; TITLE OF INVENTION: AND MONITORING TRANSPLANT REJECTION
; FILE REFERENCE: 506612000104
; CURRENT APPLICATION NUMBER: US/10/511,937
; CURRENT FILING DATE: 2004-10-19
; PRIOR APPLICATION NUMBER: PCT/US2003/012946
; PRIOR FILING DATE: 2003-04-24
; PRIOR APPLICATION NUMBER: US 10/131,831
; PRIOR FILING DATE: 2002-04-24
; PRIOR APPLICATION NUMBER: US 10/325,899
; PRIOR FILING DATE: 2002-12-20
; NUMBER OF SEQ ID NOS: 3117
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2979
; LENGTH: 325
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-511-937-2979

Query Match      21.1%; Score 39; DB 6; Length 325;
Best Local Similarity 42.1%; Pred. No. 64;
Matches      8; Conservative      2; Mismatches 9; Indels      0; Gaps      0;

QY      5 SQAVLPDDPPRYPVYGFQ 23
Db      153 SSSLPDDHSSYTPGVYMQ 171

RESULT 12
US-10-511-937-2992
; Sequence 2992, Application US/10511937
; Publication No. US2006008836A1
; GENERAL INFORMATION:
; APPLICANT: EXPRESSION DIAGNOSTICS, INC.
; APPLICANT: Wohlgenuth, Jay
; APPLICANT: Fry, Kirk
; APPLICANT: Woodward, Robert
; APPLICANT: Ly, Ngoc
; APPLICANT: Prentice, James
; APPLICANT: Morris, MacDonald
; APPLICANT: Rosenberg, Steven
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR DIAGNOSING
; TITLE OF INVENTION: AND MONITORING TRANSPLANT REJECTION
; FILE REFERENCE: 506612000104
; CURRENT APPLICATION NUMBER: US/10/511,937
; CURRENT FILING DATE: 2004-10-19
; PRIOR APPLICATION NUMBER: PCT/US2003/012946
; PRIOR FILING DATE: 2003-04-24
; PRIOR APPLICATION NUMBER: US 10/131,831
; PRIOR FILING DATE: 2002-04-24
; PRIOR APPLICATION NUMBER: US 10/325,899
; PRIOR FILING DATE: 2002-12-20
; NUMBER OF SEQ ID NOS: 3117
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2992
; LENGTH: 1333
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-511-937-2992

Query Match      21.1%; Score 39; DB 6; Length 1333;
Best Local Similarity 50.0%; Pred. No. 3.2e+02;
Matches      7; Conservative      3; Mismatches 4; Indels      0; Gaps      0;

QY      3 STQAVLPDDPPRY 16
Db      587 ASGEAVYCDIPRY 600

RESULT 13
US-10-505-928-393
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US-11-254-679-13

Query Match 22.2%; Score 41; DB 7; Length 109;
Best Local Similarity 34.6%; Pred. No. 9.6;
Matches 9; Conservative 5; Mismatches 12; Indels 0; Gaps 0;

QY 4 TSOAVLPDPFRYPVGKFFQYDTWRQ 29
|::|||::|::|::|
DB 77 TISSLPDPFRATYYCQYNSFTTGGQ 102

RESULT 6

US-11-264-784-112
; Sequence 112, Application US/11264784
; Publication No. US20060094092A1
; GENERAL INFORMATION:
; APPLICANT: E.I. duPont de Nemours & Co., Inc.
; APPLICANT: Damude, Howard Glenn
; APPLICANT: Gillies, Peter John
; APPLICANT: Macool, Daniel Joseph
; APPLICANT: Picatagallo, Stephen K.
; APPLICANT: Pollak, Dana M. Walters
; APPLICANT: Ragghianti, James John
; APPLICANT: Xue, Zhixiong
; APPLICANT: Yadav, Narendra S.
; APPLICANT: Zhang, Hongxiang
; APPLICANT: Zhu, Qulin
; TITLE OF INVENTION: HIGH ARACHIDONIC ACID PRODUCING STRAINS OF VARROVIA LIPOLYTICA
; FILE REFERENCE: C13136 USNA
; CURRENT APPLICATION NUMBER: US/11/264,784
; CURRENT FILING DATE: 2005-11-01
; NUMBER OF SEQ ID NOS: 375
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 112
; LENGTH: 477
; TYPE: PRT
; ORGANISM: Saccharomyces cerevisiae (Genbank Accession No. NP_010935)
US-11-264-784-112

Query Match 21.9%; Score 40.5; DB 7; Length 477;
Best Local Similarity 30.4%; Pred. No. 61;
Matches 7; Conservative 7; Mismatches 8; Indels 1; Gaps 1;

QY 5 SQAVLPDPFRYPVGKFFQYDTW 27
|::|||::|::|::|
DB 26 TNAIMSDNSKAYSI-KELTFNTW 47

RESULT 7

US-10-196-749-368
; Sequence 368, Application US/10196749
; Publication No. US20060094864A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Chen, Jian
; APPLICANT: Desnoyers, Luc
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Pan, James
; APPLICANT: Smith, Victoria
; APPLICANT: Watanabe, Colin K.
; APPLICANT: Wood, William I.
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; TITLE OF INVENTION: ACTS ENCODING THE SAME
; FILE REFERENCE: P3430R1C340
; CURRENT APPLICATION NUMBER: US/10/196,749
; CURRENT FILING DATE: 2002-07-16
; PRIOR APPLICATION NUMBER: 10/052586
; PRIOR FILING DATE: 2002-01-15
; PRIOR APPLICATION NUMBER: 60/059263
; PRIOR FILING DATE: 1997-09-18

; PRIOR APPLICATION NUMBER: 60/059266
; PRIOR FILING DATE: 1997-09-18
; PRIOR APPLICATION NUMBER: 60/062250
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/063120
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/063121
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/063486
; PRIOR FILING DATE: 1997-10-21
; PRIOR APPLICATION NUMBER: 60/063540
; PRIOR FILING DATE: 1997-10-28
; PRIOR APPLICATION NUMBER: 60/063541
; PRIOR FILING DATE: 1997-10-28
; PRIOR APPLICATION NUMBER: 60/063544
; PRIOR FILING DATE: 1997-10-28
; PRIOR APPLICATION data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 612
; SEQ ID NO 368
; LENGTH: 121
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-196-749-368

Query Match 21.4%; Score 39.5; DB 6; Length 121;
Best Local Similarity 40.0%; Pred. No. 18;
Matches 10; Conservative 2; Mismatches 8; Indels 5; Gaps 1;

QY 7 AVLPDPFRYPVGKFFQYDTWROSA 31
|::|||::|::|::|
DB 21 AVLTDPVQEPVPTL-----WNEPA 40

RESULT 8

US-11-154-103-9
; Sequence 9, Application US/11154103
; Publication No. US20060099205A1
; GENERAL INFORMATION:
; APPLICANT: ADAMS, GREGORY P.
; APPLICANT: HORAK, EVA M.
; APPLICANT: WEINER, LOUIS M.
; APPLICANT: JAMES, MARKS D.
; TITLE OF INVENTION: BISPECIFIC SINGLE CHAIN Fv ANTIBODY MOLECULES AND METHODS OF USE
; TITLE OF INVENTION: THERBOF
; FILE REFERENCE: 407T-000420US
; CURRENT APPLICATION NUMBER: US/11/154,103
; CURRENT FILING DATE: 2005-06-15
; PRIOR APPLICATION NUMBER: US 60/370,276
; PRIOR FILING DATE: 2002-04-02
; PRIOR APPLICATION NUMBER: US10/406,830
; PRIOR FILING DATE: 2003-04-04
; NUMBER OF SEQ ID NOS: 57
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 9
; LENGTH: 291
; TYPE: PRT
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: Synthetic antibody.
US-11-154-103-9

Query Match 21.4%; Score 39.5; DB 7; Length 291;
Best Local Similarity 31.0%; Pred. No. 48;
Matches 9; Conservative 5; Mismatches 14; Indels 1; Gaps 1;

QY 4 TSOAVLPDPFRYPVGKFFQYDTWROSA 32
|::|||::|::|::|
DB 234 TISSLPDPFRATYYCQYNY-FWTFGRG 261

RESULT 9

US-10-505-928-449
; Sequence 449, Application US/10505928

TYPE: PRT
ORGANISM: Homo sapiens
US-11-301-554-1817

Query Match 23.5% Score 43.5; DB 7; Length 357;
Best Local Similarity 47.6%; Pred. No. 16;
Matches 10; Conservative 1; Mismatches 9; Indels 1; Gaps 1;

QY 13 FPRYPVGKFFQYDTWROSAGR 33
:|||||:|||||:
DB 294 YPTYPVG-FAMYPVGRDQGR 313

RESULT 2
US-10-511-937-2452
Sequence 2452, Application US/10511937
Publication No. US200600883CA1
GENERAL INFORMATION:
APPLICANT: EXPRESSION DIAGNOSTICS, INC.
APPLICANT: Wohlgenuth, Jay
APPLICANT: Fry, Kirk
APPLICANT: Woodward, Robert
APPLICANT: Ly, Ngoc
APPLICANT: Prentice, James
APPLICANT: Morris, MacDonald
APPLICANT: Rosenberg, Steven
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR DIAGNOSING
TITLE OF INVENTION: AND MONITORING TRANSPLANT REJECTION
FILE REFERENCE: 50661200104
CURRENT APPLICATION NUMBER: US/10/511.937
CURRENT FILING DATE: 2004-10-19
PRIOR APPLICATION NUMBER: PCT/US2003/012946
PRIOR FILING DATE: 2003-04-24
PRIOR APPLICATION NUMBER: US 10/131,831
PRIOR FILING DATE: 2002-04-24
PRIOR APPLICATION NUMBER: US 10/325,899
PRIOR FILING DATE: 2002-12-20
NUMBER OF SEQ ID NOS: 3117
SOFTWARE: PatentIn version 3.2
SEQ ID NO 2452
LENGTH: 1043
TYPE: PRT
ORGANISM: Homo sapiens
US-10-511-937-2452

Query Match 22.7% Score 42; DB 6; Length 1043;
Best Local Similarity 42.9%; Pred. No. 91;
Matches 9; Conservative 4; Mismatches 8; Indels 0; Gaps 0;

QY 11 DPEPRYPVGKFFQYDTWROSAGR 31
:|||||:|||||:
DB 549 DDYPTVDTRAKFRYDSALVSA 569

RESULT 3
US-10-505-928-48
Sequence 48, Application US/10505928
Publication No. US20060088532A1
GENERAL INFORMATION:
APPLICANT: Ludwig Institute for Cancer Research et al.
TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
FILE REFERENCE: 28967/39178
CURRENT APPLICATION NUMBER: US/10/505,928
PRIOR FILING DATE: 2004-08-27
PRIOR APPLICATION NUMBER: US 60/363,019
PRIOR FILING DATE: 2002-03-07
NUMBER OF SEQ ID NOS: 866
SOFTWARE: PatentIn 3.2
SEQ ID NO 48
LENGTH: 492
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:

OTHER INFORMATION: KIAA0062
US-10-505-928-48

Query Match 22.4% Score 41.5; DB 6; Length 492;
Best Local Similarity 45.0%; Pred. No. 46;
Matches 9; Conservative 6; Mismatches 4; Indels 1; Gaps 1;

QY 2 VSTSQAVLPDDPFRYPVGKFF 21
:|||||:|||||:
DB 367 ISTSVAILCEFP-HELGDFF 385

RESULT 4
US-10-505-928-408
Sequence 408, Application US/10505928
Publication No. US20060088532A1
GENERAL INFORMATION:
APPLICANT: Ludwig Institute for Cancer Research et al.
TITLE OF INVENTION: LYMPHATIC ENDOTHELIAL GENES
FILE REFERENCE: 28967/39178
CURRENT APPLICATION NUMBER: US/10/505,928
PRIOR FILING DATE: 2004-08-27
PRIOR APPLICATION NUMBER: US 60/363,019
PRIOR FILING DATE: 2002-03-07
NUMBER OF SEQ ID NOS: 866
SOFTWARE: PatentIn 3.2
SEQ ID NO 408
LENGTH: 531
TYPE: PRT
ORGANISM: Homo sapiens
US-10-505-928-408

Query Match 22.4% Score 41.5; DB 6; Length 531;
Best Local Similarity 45.0%; Pred. No. 50;
Matches 9; Conservative 6; Mismatches 4; Indels 1; Gaps 1;

QY 2 VSTSQAVLPDDPFRYPVGKFF 21
:|||||:|||||:
DB 406 ISTSVAILCEFP-HELGDFF 424

RESULT 5
US-11-254-679-13
Sequence 13, Application US/11254679
Publication No. US20060099207A1
GENERAL INFORMATION:
APPLICANT: Wu, Herren
APPLICANT: Allan, Christian
APPLICANT: Gao, Changshou
APPLICANT: An, Ling-Ling
APPLICANT: Kiener, Peter
APPLICANT: Mao, Su-Yau
APPLICANT: Coylye, Anthony
TITLE OF INVENTION: High Affinity Antibodies Against HMB1 and Method of Use Thereof
FILE REFERENCE: HB601US
CURRENT APPLICATION NUMBER: US/11/254,679
PRIOR FILING DATE: 2005-10-21
PRIOR APPLICATION NUMBER: 60/620,726
PRIOR FILING DATE: 2004-10-22
PRIOR APPLICATION NUMBER: 60/651,512
PRIOR FILING DATE: 2005-02-10
PRIOR APPLICATION NUMBER: 60/658,572
PRIOR FILING DATE: 2005-03-07
PRIOR APPLICATION NUMBER: 60/662,944
PRIOR FILING DATE: 2005-03-18
PRIOR APPLICATION NUMBER: 60/713,712
PRIOR FILING DATE: 2005-09-09
NUMBER OF SEQ ID NOS: 103
SOFTWARE: PatentIn version 3.3
SEQ ID NO 13
LENGTH: 109
TYPE: PRT
ORGANISM: Homo sapiens

GenCore version 5.1.8
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OM protein - protein search, using sw model

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(without alignments)
18.157 Million cell updates/sec

Title: US-10-632-366-3

Perfect score: 185
Sequence: 1 DVSTQAVLPDPFRYPVKGKFGYDTWRQAGRL 34

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Gapop 10.0 , Gapext 0.5

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Total number of hits satisfying chosen parameters: 21570

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	43.5	23.5	357	US-11-301-554-1817	Sequence 1817, App
2	42	22.7	1043	US-10-511-937-2452	Sequence 2452, App
3	41.5	22.4	492	US-10-505-928-48	Sequence 48, Appl
4	41.5	22.4	531	US-10-505-928-408	Sequence 408, App
5	41	22.2	109	US-11-254-679-13	Sequence 13, Appl
6	40.5	21.9	477	US-11-264-784-112	Sequence 112, App
7	39.5	21.4	121	US-10-196-749-368	Sequence 368, Appl
8	39.5	21.4	291	US-11-154-103-9	Sequence 9, Appl
9	39.5	21.4	3396	US-10-505-928-49	Sequence 49, App
10	39	21.1	323	US-11-249-111-102	Sequence 102, App
11	39	21.1	325	US-10-511-937-2979	Sequence 2979, App
12	39	21.1	1333	US-10-511-937-2992	Sequence 2992, App
13	38.5	20.8	667	US-10-505-928-593	Sequence 593, App
14	38	20.5	107	US-11-271-008-7	Sequence 7, Appl
15	38	20.5	847	US-10-505-928-400	Sequence 300, Appl
16	37.5	20.3	153	US-11-314-018-10	Sequence 10, Appl
17	37.5	20.3	1332	US-11-314-018-18	Sequence 18, Appl
18	37	20.0	172	US-11-305-447-13	Sequence 13, Appl
19	37	20.0	197	US-11-305-447-11	Sequence 11, Appl
20	37	20.0	232	US-11-305-447-6	Sequence 6, Appl
21	37	20.0	257	US-11-305-447-2	Sequence 2, Appl
22	37	20.0	267	US-11-024-544A-141	Sequence 141, App
23	37	20.0	267	US-11-024-545-63	Sequence 63, Appl
24	37	20.0	267	US-11-251-466-37	Sequence 37, Appl
25	37	20.0	267	US-11-254-173-48	Sequence 48, Appl

26	37	20.0	267	US-11-264-784-51	Sequence 51, Appl
27	37	20.0	415	US-10-511-937-2993	Sequence 2993, App
28	37	20.0	498	US-10-196-749-110	Sequence 110, App
29	37	20.0	477	US-11-024-544A-118	Sequence 118, App
30	37	20.0	477	US-11-024-545-46	Sequence 46, Appl
31	37	20.0	477	US-11-185-301-34	Sequence 34, Appl
32	37	20.0	477	US-11-190-750-101	Sequence 101, App
33	37	20.0	477	US-11-190-750-101	Sequence 101, App
34	37	20.0	477	US-11-251-466-20	Sequence 20, Appl
35	37	20.0	477	US-11-254-173-34	Sequence 34, Appl
36	37	20.0	477	US-11-264-784-28	Sequence 28, Appl
37	37	20.0	640	US-11-245-628-27	Sequence 27, Appl
38	37	20.0	2026	US-10-505-928-831	Sequence 831, App
39	36.5	19.7	92	US-10-546-594-84	Sequence 84, App
40	36.5	19.7	100	US-10-546-594-117	Sequence 117, App
41	36.5	19.7	108	US-10-546-594-72	Sequence 72, Appl
42	36.5	19.7	108	US-10-546-594-74	Sequence 74, Appl
43	36.5	19.7	108	US-10-546-594-76	Sequence 76, Appl
44	36.5	19.7	108	US-10-546-594-78	Sequence 78, Appl
45	36.5	19.7	125	US-10-546-594-80	Sequence 80, Appl
				US-10-546-594-121	Sequence 121, App

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